

Exploring the significance of “dark matter” in theater

JAMES WHEATON

Junior Staffwriter

Last Thursday, the College of Engineering hosted a talk for its Center for the Arts Lecture Series featuring Andrew Sofer, a professor of English at Boston College who also teaches at Harvard’s Mellon School for Theater and Performance Research. The lecture focused on Sofer’s idea of “dark matter” in the theater. In addition to his experience in the theater, Sofer is also the author of the book *Dark Matter: Invisibility in Drama, Theater, and Performance*.

Sofer’s interest in what he has christened “dark matter” began during his exploration of props and their role in the production of a play. Upon the realization that he “didn’t have the vocabulary” to describe what plays an important role in the production but is not immediately apparent to the naked eye, he sought to investigate this concept further, labeling this phenomena dark matter after the not quite understood force of the universe prized by physicists.

Confessing his nervousness at having to describe a concept of physics to such a technically competent school, Sofer joked that he has it on good authority that “scientists don’t know what dark matter is either.” Having no background in physics, Sofer strove to find a definition that fit his criteria of unseen props in theater and found that dark matter, as coined by physicists, worked very well.

As many at Carnegie Mellon know, dark matter has never been directly observed, yet we know of its definite existence due to its effect on the matter around it. According to Sofer, dramaturgically, his dark matter has a definite impact on the plot, yet is never seen. Some examples of this are characters that never appear onstage, hallucinations, or the narrated past.

To give us an intuitive example of this concept, Sofer brings up two clips of perhaps one of the most iconic Shakespeare scenes — *Macbeth’s* “Dagger of the Mind.” To emphasize the importance of dark matter, Sofer shares with

the audience the rendition of the scene as acted by Sir Patrick Stewart and directed by Rupert Goold as well as an interpretation acted by Jon Finch and directed by Roman Polanski.

In these two scenes, there is a crucial difference for the audience. In Polanski’s version, the iconic dagger is portrayed on screen, while in Goold’s version, it exists only in Macbeth’s head. Having watched the two scenes, Sofer opened up the discussion to the audience, asking for their interpretation of the two scenes, and the impact that showing the physical dagger had on the overall tone of the play.

Overall, the general consensus was that although they were both well-acted, the one that displayed the dagger on screen lent itself to silliness; the dagger, which was made using special effects from 1971, was almost too fake for the naked eye to accept, even as a hallucination. Furthermore, the visible dagger doesn’t allow the audience to choose how they view the

dagger. It forces the watcher to accept one version of the events, and leaves nothing to the mind. As one participant of the discussion succinctly put, “It murders the imagination.”

Before transitioning onto his next tangential topic, Sofer emphasized one thing about dark matter: While the audience may not be able to perceive the prop, to the character within the play there is no difference between that which is seen and that which is hidden. To the actor they are the same, whether it is a floating knife or a character we never actually meet or see. The key to props being dark matter is that we can feel their impact on the play by the way they affect the plot, the characters, or the dialogue.

Sofer’s description of his theory next addressed the difference between terror and horror.

The scenes from *Macbeth* perfectly isolate the difference between these two terms, a difference that, according to Andrew Sofer, is paramount in understanding his theory

of dark matter in the theater. According to his definition, terror is when we are afraid of something we cannot see, while horror is when we are afraid of what we see with our eyes. He cites the movie *Alien*, in which a team is hunted by a mysterious creature that is only revealed at the end. Sofer argues that the scarier parts of the film are when we don’t know what’s going on, before the reveal, rather than when we see the horrifying monster. Much like the alien, our imagination is more powerful than any playwright’s script or director’s decision, and therefore it is often beneficial to have props be dark matter.

Andrew Sofer’s theory of dark matter, as described in his book *Dark Matter: Invisibility in Drama, Theater, and Performance*, offers a unique perspective on theater. While focusing on an area in which many have expertise, Sofer has delved into a smaller realm that has not yet been fully explored in order to bring a fresh opinion to the world of theater.

Students receive advice on acquiring internships at Internship Showcase

KRISHNA RAO

Staffwriter

On Thursday, the Career and Professional Development Center hosted the Internship Showcase event. Student presenters, with internship experiences at companies like Boeing, IBM, and AT&T, were able to speak with students currently searching for summer opportunities. Other organizations represented included government agencies, nonprofits, and hospitals.

Beginning at 4 p.m., students were free to walk

around the tables and interact with the presenters, who had prepared exhibitions and displays of their experiences working with the companies. Some of the common threads expressed throughout the presentations included the application process, the nature of the work, lodging and transportation, and words of advice.

The event was open to all majors, with various presenters representing a diverse educational background ranging from the humanities to engineering.

The presenters came

across their internship opportunities in a variety of methods. Some used school networks such as TartanTrak, the Business Opportunities Conference (BOC), the Technical Opportunities Conferences (TOC), or even the Alumni Directory. They were quick to mention that knowing people who work at the companies and having connections is very helpful not only for getting the desired position, but also for access to information along the way. Most of the presenters had used an online application process for the company they

interned at.

Others, like senior information systems major Laura Lodewyk, said that professors are a good resource for finding internships. Lodewyk interned with the Palau Financial Intelligence Unit through a program called Technical Opportunities in the Global Community. She found out about the internship through one of her professors.

“Professors within Carnegie Mellon often have connections to companies

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Maegha Singh/Art Editor

Lecture discusses human trafficking

DANA KIM

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Human trafficking is a global problem, with 20–30 million slaves being sold around the world today. It is extremely prevalent in the United States alone, with 75 percent of U.S. trafficking victims being, in fact, U.S. citizens. The United States has been labeled as a “destination country” for international trafficking due to the fact that we are considered to be a wealthy country and have expendable money for the exploitation of human products. Countries with instabilities and weak infrastructure tend to be the “supply countries,” where large pools of vulnerable citizens in search of security and hope can be found.

This was just a portion of what director of programs for The Project to End Human Trafficking, Lynsie Clott, discussed in Tuesday’s presentation titled “Human Trafficking 101 and Local Cases.” Clott delivered a highly informative yet unsettling talk on understanding this concept of modern slavery. She provided the audience with a thorough definition of human trafficking — whilst also clarifying the difference between human trafficking and human smuggling — and the various ways trafficking conceals itself in society in the forms of sexual slavery, commercial sexual exploitation, forced labor, or forced servitude.

Clott provided hard-hitting examples that illustrated the differences between the numerous forms trafficking could take.

The first example was of a trafficking victim from China who had been given a forged passport and was tricked into coming to the United States with the hopes of “working in a nice hotel and making good money.” Upon arrival at JFK, her traffickers discretely transported her from the airport to a hotel room where she was forced into becoming a prostitute.

More extreme examples include such an incident involving a girl whose earliest memories were of her parents using her as the “star” of their child pornography film to advertise her for commercial sex. Clott connected this example to the fact that children are frequently targeted and kidnapped by traffickers, forced to beg for money on the streets, and cruelly maimed and deformed by their kidnappers to entice passersby into sympathetically yielding more money.

In the U.S., regional and inter-state movement of humans as products (often referred to as “running the circuit”) is much more prevalent than international trafficking. The United States’ consumerist culture and the need to meet the incessantly increasing demand for goods are what fuel labor trafficking. January is Human Trafficking Awareness month, and it is crucial to acknowledge the importance of spreading awareness and educating ourselves. The general population’s ignorance of issues regarding human rights violations and their prevalence in our country is what cultivates, if not exacerbates, this matter. There are countless resources available to educate us on the matter of human trafficking. The Not For Sale Campaign and the United States Department of Labor can both be referred to as credible sources of information on the issue. Slavery Footprint is also a very useful tool that serves as a type of survey that allows users to “input select data about their consumer spending habits, which then outputs a graphical ‘footprint’ of the user’s participation in modern-day slavery (as quantified by their consumption of items created by forced labor and child labor).”

To get involved at the institutional level, students can contact Jess Klein, the Coordinator of Gender Programs & Sexual Violence Prevention, who organized the event.

FEATURE PHOTO

Students reunite at “Re-Orientation”



Stefen Zhu/Staff Photographer

Carnegie Mellon first-year students were able to reunite with their Orientation Leaders and Counselors at the Kirr Commons in the Cohon Center. Students talked and ate together while also performing the addictively fun orientation dance set to Deorro and Chris Brown’s “Five More Hours.”

Campus Crime & Incident Reports

Underage Drinking

Jan. 23, 2016

University Police responded to Stever House in response to reports of an intoxicated male. The Carnegie Mellon student was provided with medical attention and was issued a citation for underage drinking.

Alcohol Amnesty

Jan. 24, 2016

University Police responded to Mudge House in response to a report of an intoxicated male. The Carnegie Mellon student was provided with medical attention. All criteria of alcohol amnesty were met, and no citations were issued.

Odor of Marijuana/Disorderly Conduct

Jan. 25, 2016

University Police responded to Boss House after

receiving complaints about an odor of marijuana. Officers recovered marijuana and other drug paraphernalia from the site, and the Carnegie Mellon student responsible was issued a Pennsylvania state citation for disorderly conduct.

Theft by Deception

Jan. 26, 2016

A Carnegie Mellon student reported to University Police that she was the victim of an online scam. After posting her resume online, the student was contacted by a company who requested that she deposit a check sent by the company into her personal bank account. The student then followed instructions from the company to withdraw a large amount of money from her personal bank account and sent the money to a California state address. On Jan. 26 she discovered that the check sent from the company had bounced and she had lost a

large amount of money from her personal bank account. An investigation is ongoing.

Theft of iPhone Charger

Jan. 27, 2016

University Police responded to Doherty Hall in response to a reportedly stolen iPhone charger. A Carnegie Mellon student told University Police that his iPhone charger was unlawfully removed from Doherty Hall sometime between 10 p.m. on Jan. 26 and 12:30 p.m. on Jan. 27. An investigation is ongoing.

Suspicious Male

Jan. 28, 2016

A University security officer observed a suspicious male at the Cohon University Center equipment desk. University police officers made contact with the Carnegie Mellon non-affiliate, who was escorted off of campus without incident.

Suspicious Male

Jan. 28, 2016

University Police responded to the College of Fine Arts (CFA) after receiving a report of a suspicious male. A Carnegie Mellon student told University police that a suspicious male followed him from the Cohon University Center to CFA. The male reportedly made inappropriate comments to the student before leaving the area in an unknown direction.

Odor of Marijuana/Disorderly Conduct

Jan. 29, 2016

University Police responded to Boss House in response to complaints of an odor of marijuana. Officers recovered marijuana and other drug paraphernalia, and a Carnegie Mellon student was issued a Pennsylvania state citation for disorderly conduct.

Compiled by
VALENE MEZMIN

CAMPUS NEWS IN BRIEF

The Institute for New Feeling displays new ways of feeling new at Miller Gallery

Three alumni from Carnegie Mellon’s School of Art have created a research clinic devoted to developing new ways of feeling and ways of feeling new. Alumni Scott Andrew, a current adjunct instructor in art, Agnes Bolt, and Nina Sarnelle have entitled this clinic The Institute for New Feeling (IFNF). The institution will be geared towards working on treatments, therapies, retreats, and wellness products.

In response to the idea that corporations in this country can be granted personhood, the Institute stated, “Anyone can be an Institute. Anyone can construct a belief system; or define a new standard of beauty; or decide what is ‘good for us.’”

The Institute’s latest

project, “Furthering Cream,” will be on display at the Miller gallery until Feb. 28. Their work will be one of many featured at the exhibit, which is titled *Maximum Minimum in Unum*. It will feature other art works produced by Carnegie Mellon alumni. The Institute’s performance showed how “Furthering Cream” is produced. The Institute advises guests to return to the exhibit throughout the month to witness how the material crystallizes and ages, harvested and bottled through the IFNF cave system.

The Institute is devoted to finding ways for its founders to connect with people. Their ultimate goal is to open a spa in Los Angeles to further their research in creating new experiences.

CMU Alumni create Autopod “Micro-taxi” that is turning heads in Shadyside

Carnegie Mellon alumni Tanuj Apete and Deepak Vidhani have created something new that is turning heads in Shadyside. The graduates have created a “micro-taxi” called the Autopod that is a three-wheeled, battery-assisted bicycle surrounded by a lime green outer shell used to cover passengers and the driver. These rides run for about two miles or less through the Shadyside district, although by April they will be operating throughout South Side, the Strip District, and downtown neighborhoods.

Autopods partnered with the Shadyside Chamber of Commerce, which sponsored the rides. Chamber Director Tori Mistick stated “They’re fun, the color is great, and they’re very practical.” Rides are free during the weekends

but cost \$5 during the weekdays. Autopods pay the drivers \$10 per hour on the weekends to accommodate for the free fares.

Tanuj Apete, co-founder of Autopods, thought of the idea during the winter of his junior year. “It got too cold for me to walk to class so I thought if only there was a way to get a quick short distance ride — something a taxi wouldn’t do,” Apete said.

Apete and Vidhani are undergoing plans to modify the vehicle with canvas jeep-like doors that snap onto the shell, a lighter outer aluminum shell to decrease the weight of the vehicle, and iPhone mounts created from 3-D printers.

Compiled by
VALENE MEZMIN

WEATHER

TUESDAY	WEDNESDAY	THURSDAY
51° / 43°	55° / 29°	35° / 25°
FRIDAY	SATURDAY	SUNDAY
39° / 25°	42° / 25°	36° / 18°

Source: www.weather.com

Corrections & Clarifications

In last week’s issue of The Tartan, the article “Panelists share advice in The Black Experience” incorrectly said that Clarence Polke was present in the initial portion of the event and was the founder of verysmartbrothers.com, rather than Damon Young, who founded verysmartbrothas.com.



INTERNATIONAL NEWS IN BRIEF

Oxford University will keep statue of Cecil Rhodes

LONDON — Oxford University has voted to keep its statue of Cecil Rhodes, an imperialist benefactor seen by many as an architect of apartheid. The decision came after several university students expressed their disapproval of the statue. Cecil Rhodes was a former student of the university.

Source: *The New York Times*

WWII “comfort women” sex slaves speak out

MANILA — 89-year-old Hilaria Bustamante is the latest Philippine woman speaking out about being repeatedly raped by Japanese soldiers during the 1943 Japanese occupation of the Philippines. Bustamante is one of an estimated 80,000 to 200,000 women, labeled as “comfort women,” to suffer this treatment.

Source: *The New York Times*

Chilean daughter-in-law makes court appearance

SANTIAGO — Chilean President Michelle Bachelet’s daughter-in-law, Natalia Compagnon, is being investigated for allegations of fraudulent tax affairs. The allegations against Compagnon include false tax declarations, misrepresenting her income, and issuing fraudulent invoices. Chilean citizens were heard shouting outside the court.

Source: Reuters

British mother is convicted of joining ISIS

LONDON — Tareena Shakil, a 26-year-old mother, was found guilty of joining ISIS and promoting terrorism on social media. Shakil had previously taken her son to Syria and posted pictures of him standing next to a weapon. She has denied joining ISIS, but detectives have uncovered a photograph of her posing under the ISIS flag.

Source: Reuters

Electricity in Iraq affected by blast from explosion

ERBIL — A pipeline that is used to generate half of the city’s electricity in Iraq’s northern Kurdistan was hit by a blast, causing a power outage. The explosion is said to have been caused by two homemade bombs. Authorities were able to restore most of the power back to the city.

Source: Reuters

Islamic state bomber kills two people in Yemen

ADEN — In the latest Islamic State bombings, two people were killed and five were wounded from a suicide car bomb attack. Islamic state militants named the attacker as Oweis al-Adani. This is the latest in a string of ISIS suicide bombings in Yemen.

Source: Reuters

Compiled by
VALENE MEZMIN



CMU Celebrates Ninth Annual International Data Privacy Day



Courtesy of Wikimedia comments
Ed Felten, White House U.S. Deputy Chief Technology Officer, delivered the keynote address at this year's Data Privacy Day at Carnegie Mellon. Felton's address was aimed at clarifying the elusive concept of data privacy.

DEBORAH CHU
Staffwriter

Last Thursday, Carnegie Mellon hosted CMU Privacy Day, a six-hour event to celebrate the Ninth Annual International Data Privacy Day. The international holiday's purpose is to "empower and educate people to protect their privacy and control their digital footprint," according to Carnegie Mellon's website. Data Privacy Day has occurred annually on Jan. 28 since 2007, and is observed in the United States, Canada, and Europe. The event took place in the Cohon Center and was open to the public. It included a privacy clinic; a keynote by Ed Felten, U.S. Deputy Chief Technology Officer; a panel discussion with faculty members from Heinz School of Management and Public Policy, the School of Computer Science, and the College of Engineering; and a poster session detailing the current privacy research that is ongoing around the university.

At the privacy clinic, students stopped by to learn how to protect their privacy. Information privacy and

student security experts from Carnegie Mellon were present to educate the public, answer questions concerning privacy risks, and provide advice on topics such as online advertising, social media, private browsing, mobile devices, and banks. Carnegie Mellon's Information Security Office (ISO) also presented Ask the ISO, which provided information about what the ISO watches on the network and what actions are taken to protect privacy. The clinic was organized by the masters program in privacy engineering at Carnegie Mellon.

The Privacy Day keynote address, "Making Privacy Work for Everyone," was delivered by Felten, with an introduction by Andrew Moore, the dean of Carnegie Mellon's School of Computer Science. Felten currently serves at the White House as the U.S. Deputy Chief Technology Officer, and is also the Robert E. Kahn Professor of Computer Science and Public Affairs at Princeton University and the director of Princeton's Center for Information Technology Privacy. The keynote and following panel discussion

were video-streamed live, the link to which can be found at <http://cups.cs.cmu.edu/privacy-day/2016/>.

In his introduction, Moore quipped that "One of my predictions is that 2036 is going to be the very last year that the President of the United States is not a computer scientist." He praised Felten for being an ideal computer scientist, stating that "his career has been profoundly technical and he has now, in many roles, taken that out to the rest of the world to improve the lives of people through computer science."

Felten elaborated on the title of his talk, "Making Privacy Work for Everyone," by posing the question on how to make privacy available and accessible to more than just people with economic and social power, or who are experts. He stated, "It shouldn't require a law degree or an advanced degree in computer science to understand where your data goes when you browse the web, but nowadays, that can sometimes be the case."

As for how to empower users in making important

privacy decisions for themselves, Felten spoke about seeking improvement through policy and research, which could be done by holding institutions to their promises and banning deceptive practices, creating organizations to provide advice and guidance to users in terms of privacy, or developing ways to increase transparency to users.

A highlight of the talk was Felten's discussion of "the importance of who is in the room when important decisions are made," and the benefits of having more computer scientists involved in public service. One of the reasons for this is, as Felten stated, "to infuse our ideas over time and to infuse our mindsets." During his time in government, Felten noticed that "often what's needed from me ... is some concept that is second nature to trained computer scientists, but not second nature to other people."

"There's a way that computer scientists think about these issues, which is kind of invisible in the policy world," he said.

To justify bringing

computer scientists into government, Felten referred to the success of economists in government.

He pointed out that economists have "created career tracks for people in the field which go into and out of and through government.... Economists think of their interaction with the public and with public policy as a core mission of their discipline."

Felten concluded, "We, as computer scientists, or as experts in any field, have something that we bring to the table that is very valuable for these policy discussions and often missing.... It's our responsibility to make sure our voice is heard." He added, "Many of the major national challenges that we face ... have computer science as at least a component of both the problem and the solution."

Following the keynote was a panel discussion featuring Felten along with Carnegie Mellon professors Alessandro Acquisti, a professor of information technology and public policy; Lorrie Cranor, a professor in the institute for software research and profes-

sor of engineering and public policy; Anupam Datta, an associate professor of electrical and computer engineering and computer science, and Norman Sadeh-Konieczpol, a professor in the institute for software research. The panel was moderated by Ramayya Krishnan, dean of the Heinz School of Management and Public Policy.

After the panel discussion, a reception and poster session was held. Privacy research from Carnegie Mellon was presented, including "Can personalized face composites be used for implicit and covert targeted advertising?" by Sonam Samat, a doctoral student in the Heinz School; "Answering Questions about Privacy Policies Using Crowdsourcing and Automated Text Analysis" by Aswarth Dara, a masters student in the Language Technologies Institute; and "Your Location has been Shared 5,398 Times! A Field Study on Mobile App Privacy Nudging" by Hazim Almuhi-medi, a doctoral student in the Institute for Software Research.

CMU Privacy Day was organized by Lorrie Cranor and Norman Sadeh.

Students share tips on how to land summer internships

INTERNSHIPS, *from A1*

or opportunities in the real world. If you have a professor who you enjoyed taking a class from, or whose research you are interested in, talking to them about career opportunities can be very beneficial," Lodewyk said. Lodewyk spent her summer helping to create a database for Palau, a small island nation in the Pacific Ocean and was involved in an effort to digitize the country's financial records.

A major lesson to be learned for many of the attendees at the conference was that finding an internship is not easy. Most of the time, there is no straightforward way of getting an internship, and often, failures are more common than successes. Only students who are very driven and resolute in their search are rewarded.

Ashwini Ganpule, a sophomore double major in mechanical engineering and engineering and public policy, worked at the Environmental Protection Agency (EPA) in Washington D.C. as a Congressional and Intergovernmental Relations Intern. She said that in order to

get an internship as a college student, one must be "really persistent about it." Furthermore, she stated "I applied to twenty different places, at least, and maybe five or six that I even got interviews with." Ashwini put her skills towards advising and writing letters on policy decisions at the EPA as a part of her internship.

The logistics of internships was another matter addressed by many student-presenters. Out of those that did not work at home, several lived with other interns in subsidized housing. Companies are usually willing to provide interns with lodging and a means to commute. Other times, students are able to stay in vacant dorms in local universities.

Overall, the presenters at the internship showcase enjoyed their internship experiences. Many felt as though they played important roles in the projects they worked on, with some presenters designing and implementing their projects within one summer. As for the work environment, the students reported that coworkers

and managers are generally friendly and helpful.

Internships are a great developmental process for many students. They help interns increase their skills and experience, and inform them on the career field they are hoping to join. Stephanie Chung, a junior human-computer interaction and business administration double major, represented Bosch, a German based multinational electronics company. Chung worked in the company's business development and project management and language services sectors. She said that her experience helped her solidify her career aspirations, stating, "Before this internship, I wasn't sure what career path I wanted. Through this internship, I found out ... what about project management I liked." She added, "Now I know which classes to take, and I'll appreciate those classes as well because I'll be learning valuable skills from them."

Students around campus have many such stories to tell about how internships proved to be an invaluable experience.

Carnegie Mellon
Wind Ensemble

George Vosburgh & Thomas Thompson, CO-DIRECTORS
Stephen Story, ASSOCIATE DIRECTOR

Shane M. Gillen, BASSOON

Joseph Willcox Jenkins
American Overture for Band

Karl Husa
Music for Prague 1968

Frigyes Hidas
Concerto for Bassoon

Alex Marthaler
Turning in Air - World Premiere

Samuel Barber
Commando March

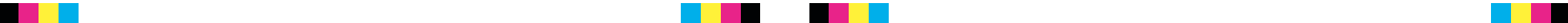
SAT
FEB 6
2016
4:00 pm

Soldiers and Sailors Hall

FREE
Carnegie Mellon University students, faculty, and staff w/ valid ID

CarnegieMellonMusic @CMUmusic
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Carnegie Mellon University
School of Music



Forum

Primary frontrunners doom GOP

DJAMENO NTOWE-FANKAM
Junior Staffwriter

Today, the Iowa caucus officially kicks off the race toward the presidency. As Americans, we only really have two realistic options in terms of the type of people we are to vote for: Democrats and Republicans. Despite the shift of the average American’s views towards being more moderate, we have two parties that are becoming more polarized. The most interesting issue at hand is who the Republican Party (GOP) will choose to lead their

campaign for the right to preside over the American people. As of now, the two front-runners in the Republican Party are businessman Donald Trump and Senator Ted Cruz, neither of whom are qualified to lead and represent the American people. Overall, I feel that people are fairly reasonable, so a person as unreasonable as Trump getting the support that he has right now is unprecedented. Clearly, he is an intellectual of sorts, since he was able to turn a million dollar loan into a a billion dollar franchise, but the

things that he says, the way he presents himself, and his beliefs make him seem like he would fit better in a comedy script than in the White House. He is essentially the maverick of the mavericks, not only in the fact that he does not have any political experience prior to running for president, but also in that the method by which he expresses his opinions traps his own party. For instance, when he says something along the lines of wanting to prevent

See **Republican**, A4

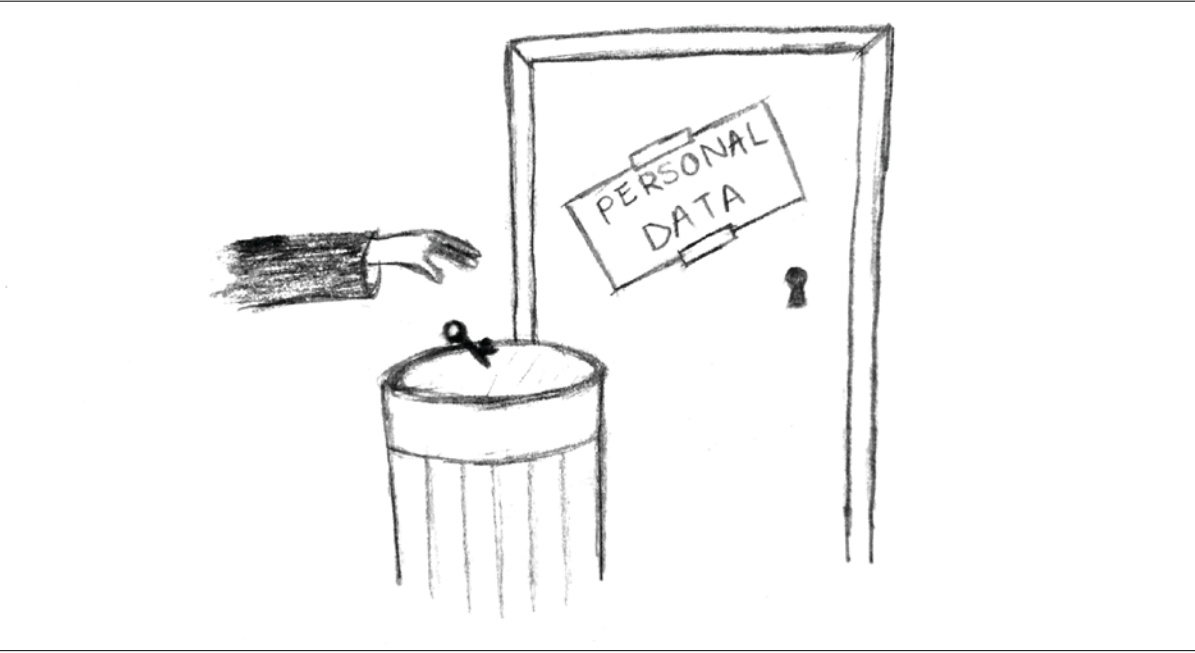
FROM THE EDITORIAL BOARD

Personal privacy casualty of fight against terrorism

About three years ago, the issue of mass surveillance emerged from government offices and entered mainstream conversation for the first time. Edward Snowden, a former CIA employee, leaked information about massive, blanket surveillance programs run by the NSA with the co-operation of the telecommunication companies. The intelligence community was using programs like PRISM to clandestinely spy on the communications of regular citizens — in the name of “national security.” While

be weakened and have argued that the attacks could have been prevented under the old system. It is The Tartan’s belief that such claims are nothing more than opportunistic fear-mongering that panders to the most base sensibilities within us. The so-called “benefits to national security” are imagined, and they are at the cost of a complete loss of privacy for regular, well-intentioned, law-abiding citizens. Proponents of weaker encryption typically reference the above attacks

negative repercussions, and made us even marginally safer, it might be considered a useful, if incremental, positive step. The problem is that while weakening encryption will be a negligible deterrent to terrorists, it leaves us wide open to attacks from a different nefarious element — hackers. We cannot have a backdoor just for government agencies. If such a vulnerability exists, the “bad guys” will find it. If agents from the NSA, CIA and FBI can break into your phone, you can bet that far scarier



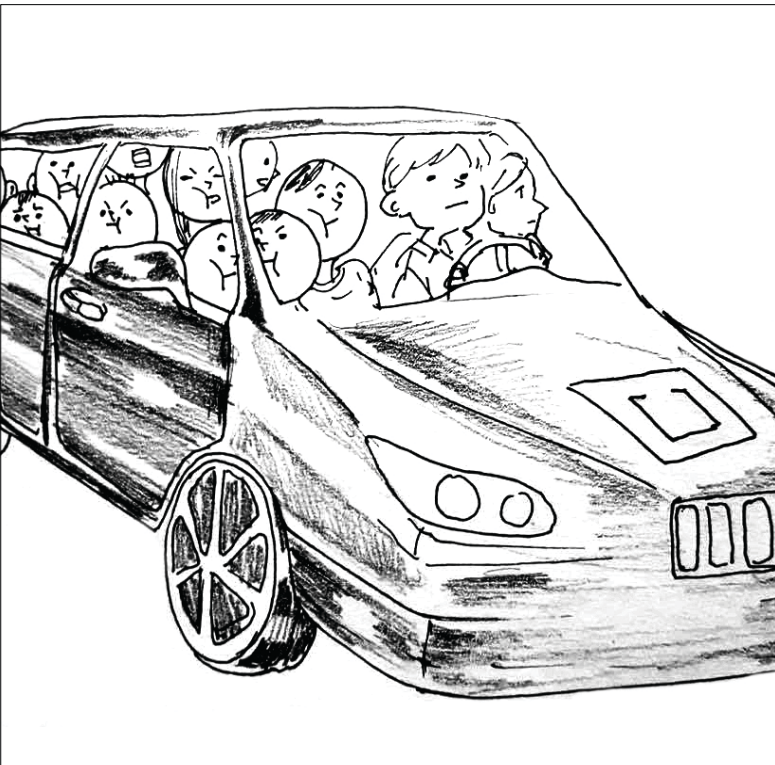
Alison Chiu/Staff Artist

it was unclear how invasive the program was, indignation followed, and a massive scandal ensued; people had no idea to what extent their behavior was being tracked, and revelations like this just seemed to confirm even the most far-fetched conspiracy theories that the government is always watching us. The backlash, spearheaded by some of the largest high-tech Silicon Valley companies — Apple, Google, WhatsApp, and more — was swift and decisive. Companies doubled down on encryption, or the scrambling of data to make it impossible to read without a proverbial key. Apple, with the release of iOS8 in 2014, enabled end-to-end encryption — essentially throwing away the encryption keys, so that it became physically impossible for anyone to access customer data. Google and WhatsApp soon followed suit with their own versions of end-to-end encryption. Recently, the debate surrounding encryption and surveillance has restarted, following the attacks in Paris and San Bernardino, CA. Although one can never know for sure, a commonly accepted belief is that it is much more difficult for government agencies to intercept our communications than it was a couple of years ago. As a result, some people have claimed that encryption should

and argue that if we could have found where the terrorists were talking and listened, the whole tragedy could have been averted. The problem is, there’s no evidence. Hindsight investigations have revealed numerous tragically dropped leads before the attacks — mostly from available information that was simply ignored. Both the plots seem to have been hatched in person, with little to no online footprint. The one encrypted tool that was used — a chat app called Telegram — is based in Germany and is thus immune to U.S. encryption policy. There probably will be cases where the ability to read iMessages or WhatsApp messages might help law enforcement find incriminating evidence. Rather than catching terrorists, however, evidence is more likely to point towards drug dealers, small time shoplifters, people cheating on their spouses, and other people supposedly protected by the fourth amendment. Serious criminals and terrorists are most likely only going to use platforms — such as the aforementioned Telegram — that they are confident are immune to monitoring for the crucial communications that intelligence agencies are looking for. More public, less secure platforms are used for propaganda and recruiting, not discussing their next attack. If weakening encryption had no

people can also break in, giving them access to, among other things, all your health information, your passwords, your credit card information, and your fingerprints. The past decade has seen no shortage of lone computer geniuses single-handedly bringing down massive, supposedly secure platforms and causing economic damage ranging into hundreds of millions of dollars. In 2010, Google had its entire corporate infrastructure targeted. While we cannot know for sure, most evidence would lead the blame straight to the Chinese government. Even scarier, in December 2014, 40 million debit and credit card numbers were stolen from Target’s servers. In this case, the perpetrators still have not been found. While strong encryption isn’t some golden arrow that can permanently prevent any such attacks, it is by far the best defense we have. The technology for encryption exists and is in the public domain. We can’t just wish it away, even if we wanted to. Actual threats to national security will either switch to non-U.S. platforms or develop their own encryption. If we make it illegal to encrypt, or arm-twist mainstream technology platforms to use weaker encryption, we do one thing — compromise the privacy and digital safety of harmless, law abiding citizens.

Uber, Lyft competition drives rates off a cliff



Eunice Oh/Staff Artist

EMILY GALLAGHER
Junior Staffwriter

Like many students, I flew back to Pittsburgh after winter break. Upon arriving at the airport I found the 28X to be full, and a line of people were wrapped around the corner waiting for the next bus coming in a half hour. The bus was late, I was tired, and my bags seemed to grow heavier as I stood there, weighed down by both impatience and exhaustion. After being unable to board the bus when it finally arrived, and with prospects looking bleak for the next one arriving, I decided to call an Uber, and within twenty minutes I was at the door of my residence hall, faster than it would have taken for the next 28X to arrive at the airport.

Since Uber was founded in 2009, the ride-sharing industry is one that has forever transformed not only how people view transportation, but also the availability of part-time jobs. Companies like Uber and Lyft not only give hope to people when they are running late and the bus hasn’t arrived yet, but also gives hope to people who have lost their job or can’t find a job, and are facing the dire straights of unemployment.

My Uber driver from the airport was one such employee. As I learned from my long conversation with him, my driver was an acting student at Point Park University. He was attending classes at night while trying to make a living and care for his family during the day. He told me that the reason he loves ride-sharing is because he can make his own hours. If he wants to go to his six-year-old son’s play at the elementary school at one in the afternoon he can, because he just won’t accept ride requests during that time. If he has an audition, he can go to that and on his way back home earn a few hours of pay by picking up people who are headed in the same direction. “The system isn’t perfect,” he said, “but for people like me it’s a lifesaver.”

I have heard other, similar sentiments from both Lyft and Uber drivers I have ridden with in the past few months. Ride-sharing provides a flexible part-time employment option that allows drivers to make their own hours in order to accommodate the rest of their lives. In this same conversation with my driver, however, he mentioned that Uber has recently cut down the cost of

rides, without giving any notice to the drivers. This, he admitted, is fantastic for the customers, but not so much for the drivers. What he was the most upset about, however, was the fact that Uber gave drivers no notice in implementing this change. This past month Lyft has also cut some of their rides by 62 percent. Once again, great for the customer, but not so great for the employee. Recent claims that there is a price war between Lyft and Uber are not far fetched. There certainly does seem to be a race between the two companies of who can offer the cheapest rides and attract the most customers.

If this price war continues, the price of ride sharing will just continue to get lower, benefiting the consumer, but continuously hurting the drivers. It is important to remember that drivers need an incentive to continue working for the company. Not that long ago, these companies were offering drivers large monetary incentives to switch platforms, but these companies are now becoming so greedy and competitive among each other that they risk collapsing their own system.

If Lyft and Uber continue trying to one-up each other, it may very well turn out that they will just keep losing drivers until the whole system falls apart. There is a very delicate balance that must be found between a price that will keep the customer happy and one that will continue to draw in drivers. I can’t say that I am not excited by the e-mail I just got from Lyft this afternoon about a 20 percent reduction in cost for the month of February, but at the same time I think of my driver that night and wonder if this change was sprung on him as suddenly as it was on me and how it is affecting him.

The ride-sharing industry is an ingenious one, and one that truly benefits all involved. It would be very sad to see it begin to crumble because of a few poor economic choices made by the companies involved playing chicken with each other. There is no easy answer to the problem except to keep the prices fair and the company motives in the right place. Ride-sharing connects people who otherwise would have no reason to cross paths. So I challenge you to start a conversation with your next Lyft or Uber driver; you just might walk away with a story that will impact your perspective.

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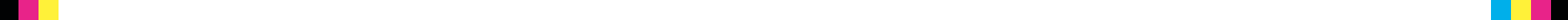
THE TARTAN



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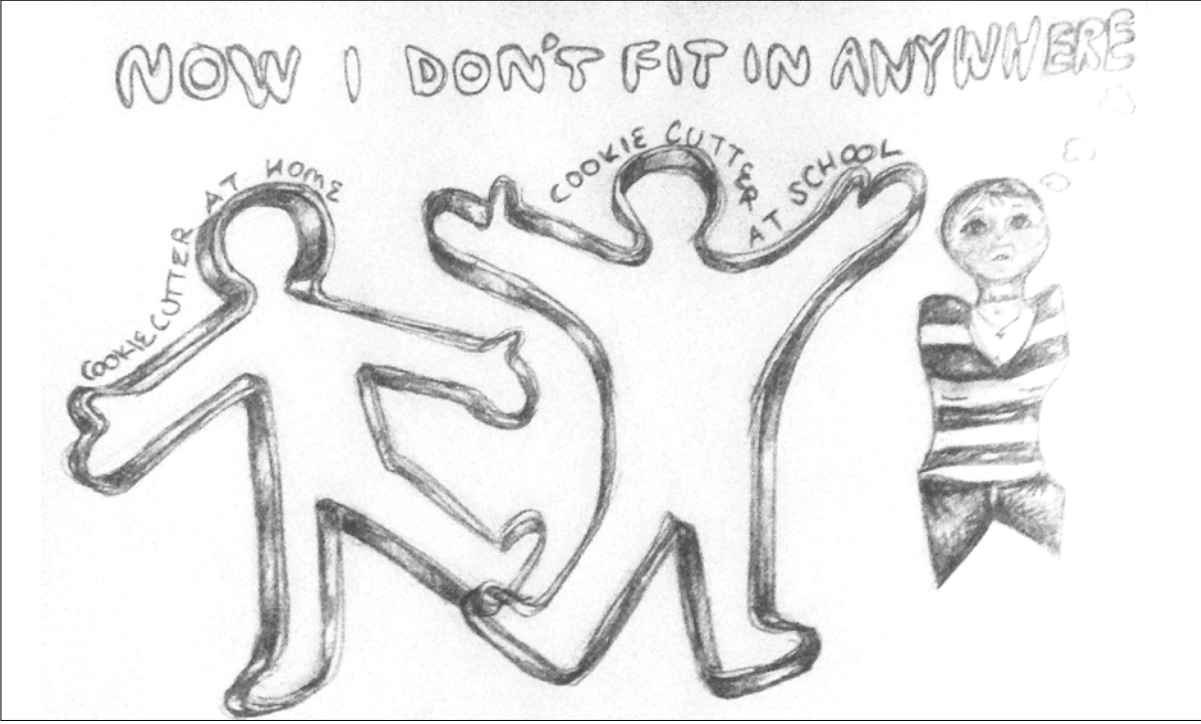
College life gives rise to generation gap debate, growth



It's official: I've graduated from the kids' table. In the eyes of my family, my matriculation to college means that I am no longer a child. Although I may not be ready to support myself and am living in the college bubble, I have reached that in-between point in family life where I have a life completely separate from my parents, but their house is still the place I call home. I am expected to be responsible enough to be able to take care of myself at school, but I am still expected to follow my parents' rules. I am supposed to be making my own decisions about my life, but my parents still expect to be able to weigh in on issues of importance.

However, the biggest change that I've experienced with regards to my parents comes in the form of my personal beliefs and opinions. While my views on the world have not changed drastically in the time since I've come to Carnegie Mellon, living away from home in a community of peers who are well-informed about the issues of the world has given me a platform and the freedom to explore what I believe in and discuss it with like-minded people. And while my parents' opinions on the world always made sense to me before college, it's easy to simply go along with what you've been raised on when that is all you know.

I probably shouldn't have been surprised when I came home and found out that the views of middle-aged people and college students differ significantly. Ideas that I had spent the past semester hearing about from my friends and classmates required



Emily Giedzinski/Staff Artist

explaining to my parents, and they did not always share my views. For the first time in my life, I felt the strain of a generation gap. The truth is, my experience as someone growing up in 2016 is different from the experience of someone who has seen the world change over the past few decades. I found myself explaining concepts of gender and sexuality, the opinions of my fellow students on world events, and news articles I had found on social media sites. In the three and a half months since I had started college, my world had expanded beyond the boundaries of my hometown at an exponential rate, and I was excited to share that with two of the most important people in my life.

Furthermore, it seemed as if I was expected to share these opinions. Suddenly, when politics came up at the

dinner table, my parents would turn to me and ask for my take on things. I was asked how I felt about current events, and also asked how I was keeping up with those current events. We had begun to realize that I, no longer a child and now able to vote, am a person with a political voice that can be wasted or cherished. My parents encourage me to be a well-informed voter, as well as an informed person regarding the happenings of the world.

But what truly threw me for a loop was when my ideas and opinions did not match up with those of my parents, not because of a lack of exposure, but a simple divergence in our world views. Our discussions turned into debates, and I felt lost — for a good portion of my life, my parents were the people who had all the answers. As a kid, it

felt like my parents were the experts of all things adult. In the presidential election that my middle school held in 2008, I knew nothing about either of the candidates, as I was 11, but I voted for the person my parents were planning on voting for because it seemed like the right answer. When my mom or dad would talk about issues of the government, their views would seem more like fact than opinion. For a long period of time, they were infallible in my eyes.

Now here I was, doing the unthinkable — disagreeing with my parents to their faces. That's not to say that my views were completely opposite those of my parents, and in fact, we agree on a variety of issues. However, when our opinions didn't match up, their voices adopted the “we are 30 years older than you and have more

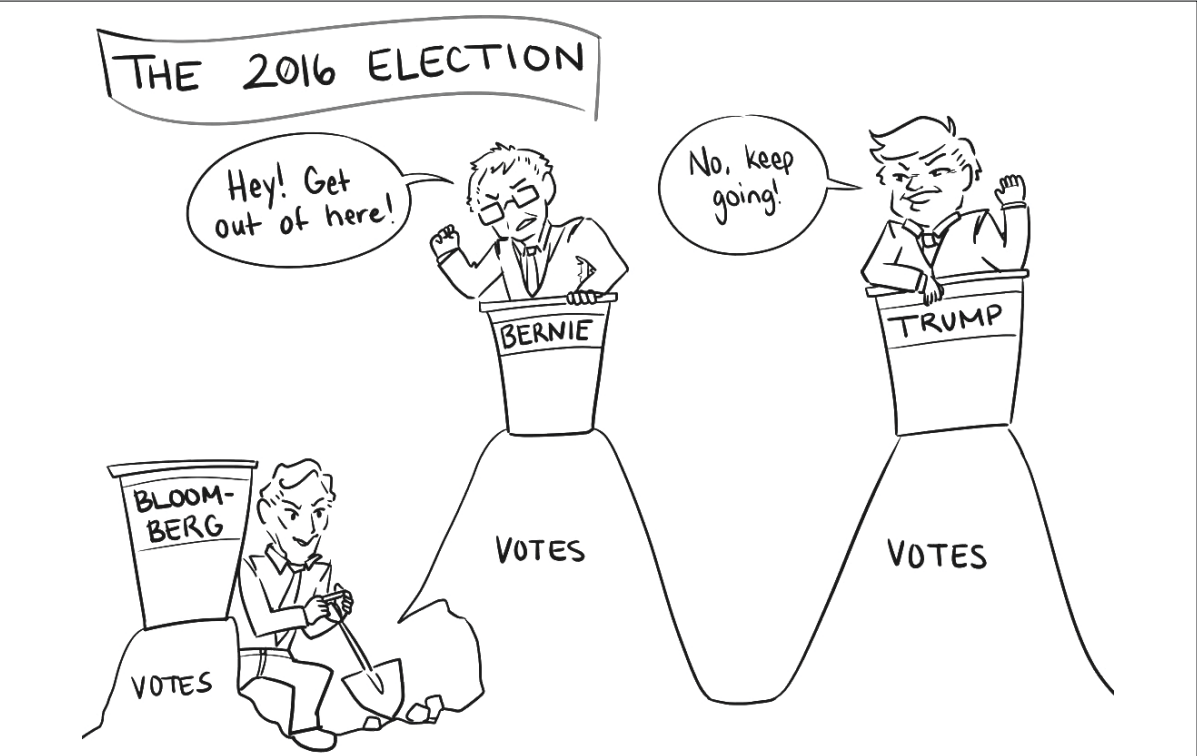
life experience than a college student” tone. Yes, you should have an opinion, they seemed to be saying, but remember that you are still new to this world. It was intimidating, and almost enough to make me concede. After all, I thought, what do I know? I'm a naïve 18 year old, I am financially dependent, and my life at school almost solely takes place within a few square blocks of land. My parents have graduated law school, spent decades in the workforce, raised a family, and seen all sorts of changes take place in the world. Who am I to think that my inexperienced voice stands a chance?

However, sitting with the adults, or for that matter, becoming an adult, means not blindly agreeing. It means having an open mind to new ideas, but not being afraid to challenge those ideas when they don't align with your convictions. It means realizing that parents, despite the years they have on their children in terms of life experience, are simply human, and therefore inherently imperfect and not always right. After all, if I can stand up to the people who raised me and insist that my voice be heard not as a child, but as a person who is on her way to adulthood, then I can hold my own when I need to speak my mind against anyone.

I have graduated from the kids' table, and now I sit with the adults. My new position requires a significant amount of responsibility; my opinion matters, and so I have to be able to back it up with facts and passion. The conversation at the adults' table can get intense, and so I must be able to hold my own. And while that may mean taking a path separate from that of my parents, it also means that I am growing up, slowly but surely.

Sydney Roslin (@sroslin) is a staffwriter for The Tartan.

Third party Bloomberg candidacy guarantees conservative President



Sarah Wang/Staff Artist



Last Friday, former New York City Mayor Michael Bloomberg indicated that he is considering a third-party run for President, particularly if the race is between Senator Bernie Sanders (I-VT) and Senator Ted Cruz (R-TX) or businessman Donald Trump. His intentions are noble: he believes that those candidates are too ideological, and he fears the polarizing impact that they might have on America's already frayed political landscape. But there is no path to victory for Michael Bloomberg. Instead, running as a third party candidate will ensure a President Trump.

I get it. He prides himself on the pragmatic, objective leadership that only comes when you shed party labels. He was a Democrat, and then a Republican, and then a nothing, and he likes being a nothing the best. He considers himself a centrist, and he thinks centrists can actually govern. He thinks the only person that can unite the country is someone who can straddle the middle.

He might be right. But he won't win. The data he's looking at is tempting: 60 percent of Americans want a third party, and a record 43 percent of voters are registered as independents, more than are registered for either major party. While there's an appetite for a third-party candidate, that's simply not our political system. In our winner-take-all system, there's

really only room for two competitive candidates. In presidential elections especially, a third-party candidate simply can't win because they need to earn 270 votes in the electoral college out of 538 total.

There are two possible scenarios in a three-way presidential election. First, all three candidates preform relatively evenly. This is the best Bloomberg can hope to perform. In this case, they will split up the electoral college, and nobody will get to 270. Then, the House of Representatives gets to decide who the president is. It is remotely possible that the Republican House would prefer Bloomberg to Trump, but this would be unlikely. More likely, Republicans will stick with their party, even if it has become the party of Trump.

The more likely scenario is that Bloomberg gets 10 to 15 percent of the vote. The most successful third party presidential candidate in the past hundred years was Ross Perot in 1992, with 18.6 percent of the vote. That's not a very promising track record for third parties. Yes, party strength has diminished, but the parties are still very powerful, especially in campaigns. When the Republican and Democratic candidates get the nomination, the whole party, and all its money, volunteers, staff, infrastructure, and data get behind them. Bloomberg would have to build all of this from scratch.

So Bloomberg gets 10 to 15 percent of the vote. The question is which 10 to 15 percent? Bloomberg thinks that he will draw support from moderates in both parties and from independents. However, he will appeal to

Democrats more than Republicans. Bloomberg supports many policies that Republicans hate. Perhaps Bloomberg's most famous policies as New York's mayor were his public health initiatives, such as banning smoking in restaurants and prohibiting restaurants from selling large sodas. Not many Republicans care for government telling them what they can and cannot do.

Since leaving office, Mayor Bloomberg has focused on Democratic issues like gun control and climate change. If you think a nanny-state loving, gun hating, pro-choice, big government, climate change believer is going to draw many Republican votes, even moderate ones, you've probably never met a Republican. Many moderate Democrats, however, will be attracted to Bloomberg over Bernie.

In either case, Bloomberg doesn't win, but he does split enough attention with the Democrat that the Republican wins. Bernie might be far to the left, but he is not a Ted Cruz or Donald Trump. Like Bloomberg, Bernie is an independent with successful experience as mayor. Bernie might not straddle the middle, but then again neither does Bloomberg. Bernie has a reputation for working across the aisle and leading practically, sponsoring more amendments than any other member of Congress. Bloomberg might not like it if someone as ideological as Bernie is on the ticket, but if Bloomberg runs against Bernie and Trump, he will hand Trump the White House.

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

Lead GOP candidates herald death of party

Republican, from A4

any more Muslims from entering the country, the GOP establishment and the opposing candidates cannot disagree with him because a large percentage of their constituents feel that there should be some preventative steps taken to decrease the amount of terrorist acts that are occurring on American soil, and that Trump's assertions could be on the right track.

Since Trump has taken the initiative to appeal to a good number of Americans, it is possible his campaign will come to fruition. Initially, it seemed that his behavior could only last so long, but despite how radical his beliefs are, he does not seem to be decreasing in popularity. As Trump said himself, if he were to go into a street and shoot someone, he would still have supporters.

In the case of Cruz, the people that know him and are not part of his inner circle do not seem to like him as an individual. For the most part, people would like to have a president that they feel that they can relate to or is generally a good person. Cruz may not be an individual that people feel would look out for their best interests. As a college student I would like to think that unless I was an absolutely horrible person, a former roommate would never bash my character and values online in view of the general public. Yet since Cruz reached the public spotlight, his college roommate Craig Mazin has been continuously posting about the character issues that Cruz was demonstrating in college. From what I have seen from Mazin's posts, he does not seem to be doing this to gain “fifteen seconds of fame,” but rather as a means of exposing to the general public to who Cruz really is as a person.

In addition, Cruz has had issues with integrity during his campaign. Cruz claimed that he and his wife funded his campaign for the Senate in 2012 completely independently by liquidating all their assets. What he did say was that he had also received a loan from Goldman Sachs to help fund his campaign. Not only did he not tell the public, he also omitted the loan from his campaign finance reports, according to *The New York Times*. I know that it is not uncommon for politicians to lie or stretch the truth to win the public's sympathy, but if a man cannot be vouched for by his college roommate and has a history of hiding the truth, can he really be trusted to lead the country?

There are other criticisms of Cruz, such as the generally

pretentious vibe he seems to give off. There are even questions about the legitimacy of his campaign since he was not born in any one of the fifty states or any of the American territories.

Even Trump has brought up the fact that the people around Cruz do not seem to either like him or trust him. Despite the fact that Cruz is Trump's biggest opponent right now, I think he brings up a valid point about the type of person that we want to lead our country.

These two candidates raise questions about the GOP as a whole and what it means to be a Republican. If the “leader” of the Republican party will be either a radical and illogical person or a person who does not seem to get along with others, what is the practicality of the party in the modern day?

If the leader of the Republican party does not really fit into what the general population feels should be done it seems that the party has two options. The first option is for the Republican party to reformulate its policies to comply with what a wider swath of the people believe in.

The alternative is for the Republican party to die out and for another party to rise and take its place beside the Democratic Party. This may sound unlikely, but this would not be the first time in American history that a prominent political party has fallen. If you look back to the early 19th century, the Whig Party was once successful, but eventually lost power and collapsed when the party's values no longer aligned with what people believed in. Whig party members migrated to a different political institution. America is changing, and if the political parties do not reflect this change, they do not deserve to be in charge of our laws.

When the Supreme Court made the prevention of same sex marriage illegal, I had two thoughts. I thought about how much has changed over the last few years, and about how America would never have another Republican president. This second thought may actually be true since the general American populace is trending a certain way while candidates like Trump and Cruz are going the other. These are not the people that should be in charge if we want to keep progressing as a nation. All in all, I feel that we as people owe it to each other to put people in power who represent what we believe. Any step that is not propelling us forward is a step that inhibits us from being the best country we can be.



Science & Technology

HOW THINGS WORK

The Zika Virus: A harmless harbinger

SHARON WU
Staffwriter

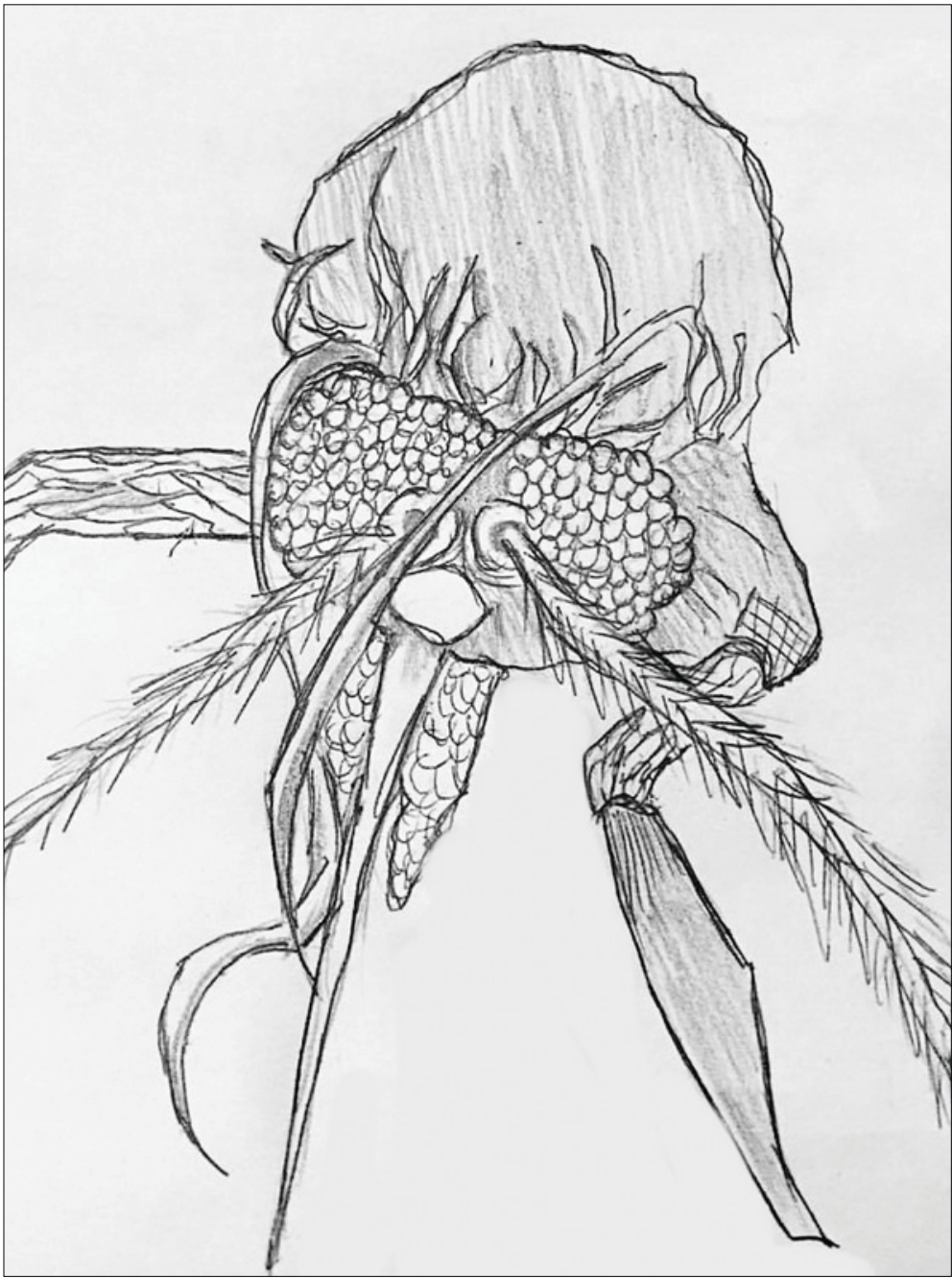
If you have been paying attention to world news lately, chances are that you might have seen some headlines about the Zika virus. While the virus has been around for a while, recent surges in the virus' prevalence have caused the disease to be pushed into the limelight.

Discovered in the 1940s, the virus has maintained a low profile until appearing in major outbreaks within the past decade. However, like an infectious disease, knowledge of the Zika virus is beginning to spread in greater proportions among the general public. According to the Centers for Disease Control and Prevention (CDC), the disease is typically transmitted when an infected mosquito bites a person.

For the most part, the Zika virus is not considered to be truly harmful. For every five people that are infected with the virus, approximately one person actually becomes ill and displays symptoms, which include fever, rash, joint pain, and red eyes. In fact, due to the lack of symptoms, most people who contract the virus will never know that they were infected.

Found in tropical and sub-tropical regions, the Aedes species of mosquito is the carrier of the Zika virus. After being infected by the virus, there is normally a 10 to 11 day incubation period, after this period, a mosquito becomes capable of transmitting the virus. Areas with stagnant water sources provide an environment in which mosquitoes can breed and pass the disease to their offspring, so these areas further increase the number of carriers for the Zika virus. Besides mosquito bites, a few reports suggest that the virus could be spread through blood transfusions and even sexual intercourse.

In April 1947, researchers studying the development of jungle yellow fever in rhesus monkeys within the Zika Forest of Uganda first discovered the Zika virus after extracting it out of the monkeys'



Maegha Singh/Art Editor

blood. Mice and monkeys in the laboratory were also capable of becoming carriers of the virus, according to a report in 1956.

Between 1951 and 1981, evidence of the Zika virus was found in blood samples taken from native African and Asian individuals. The first outbreak of the Zika virus took place in the spring and summer of 2007, where it had infected 73 percent of 7000 inhabitants in the island state of Yap, a cluster of islands located north of Papua New Guinea. Despite the 73 percent infection rate, only a smaller fraction of the infected population actually presented with symptoms.

A few years ago, the Zika virus made its way to more islands, including French Polynesia, located west of Fiji. There some patients reported having symptoms of a rare autoimmune disorder called Guillain-Barré syndrome, which causes paralysis of the entire body. Questions about the virus continued to arise as the virus moved into South America. According to the head of the World Health Organization (WHO) Margaret Chan, the mosquito-borne virus has “explosively” spread in 22 countries and territories in the Americas since it was first found in Brazil last May. There are

new suspicions that Zika virus might be able to infect the fetus of a pregnant woman, an unusual trait that has not been found in other related viruses. Doctors suspect that the disease may be correlated with the increase in cases of microcephaly in newborns in Brazil, where the number of reported cases have gone from around 150 cases per year to approximately 4000 cases each year. Microcephaly is a potentially life-threatening condition which causes babies to be born with smaller heads and underdeveloped brains, so this increase in incidence is

See **ZIKA**, A8

CMU chemist leads team to confirm four new elements

YUE YIN
Staffwriter

The seventh row of the periodic table of elements is now complete. The fourth Joint Working Party (JWP), a small international group of experts charged to review whether the claims satisfy the criteria to be recognized as a new element, on behalf of the International Union of Pure and Applied Chemistry (IUPAC) and the International Union of Pure and Applied Physics (IUPAP), has confirmed the stable existence of elements 113, 115, 117, and 118.

An element's atomic number is what distinguishes one element from another. Each element has its own specific atomic number, which represents the number of positively charged particles, or protons, in the nucleus.

In order to verify an element's existence and to assign it a definite atomic number, scientists use criteria established by the Transfermium Working Group, which evaluates elements with atomic numbers above 100. These criteria are essentially descriptions of possible experimental techniques and measurements.

In an interview with The Tartan, Paul Karol, chair of the JWP and Professor Emeritus of Chemistry at Carnegie Mellon, explained this process and how it influenced the approval of the new elements.

“A particular difficulty in establishing these new elements is that they decay into hitherto unknown isotopes of slightly lighter elements that also need to be unequivocally identified,” Karol said. “In the future, we hope to improve methods that can directly measure the atomic number, Z.”

Elements which are under review are identified by the atomic number (Z) that they are set to occupy. Karol explained the production of Z = 118 as a matter of

simple addition; by combining Z = 20 (Calcium) with Z = 98 (Californium) through fusion, one obtains Z = 118.

“That fusion, as opposed to a scattering or many other processes, so rarely results in a viable 118 product that one must be extraordinarily careful about identifying the product in the midst of many, many similar outcomes of the nuclear collision. It is truly searching for a needle in a haystack,” Karol said.

A typical experiment, done in Russia or Japan for example, might run for a month, during which one or two candidate products get tentatively identified among a sea of uninteresting signals. Then those candidates need to be measured to look for convincing identifying signals that confirm the interpretation that the result is valid.

All those steps need to be vetted to be certain there are not alternative interpretations. Ultimately, the group follows guidelines in the criteria to see whether or not the radioactive species proceed through subsequent decay steps that match previously identified radioactivities of known elements. According to Karol, duplication of results is extremely important as well. This can take years of experimentation to achieve.

The critical review process involves a small international team of experts who immerse themselves in the experimental record to see if the criteria have been met.

The team communicates entirely through the Internet and, although very enthusiastic about recognizing new discoveries, is committed to looking into every possible alternative explanation of the results.

This tenacity is necessary due to the high likelihood of false positives. Each time the JWP has been assembled to examine a discovery claim,

See **ELEMENTS**, A7

SCITECH BRIEFS

New polymer leads to self-repairing, artificial muscles

Researchers at Northwestern University have developed a completely new hybrid polymer that could one day be used in artificial muscles or other life-like materials, drug delivery, biomolecules, self-repairing materials, and for replaceable energy sources.

“We have created a surprising new polymer with nano-sized compartments that can be removed and chemically regenerated multiple times,” said materials scientist Samuel I. Stupp, the senior author of the study. The hybrid polymer combines two types of known polymers formed with strong covalent bonds and with weak non-covalent bonds. The integrated polymer offers two distinct “compartments” with which chemists and materials scientists can work to create and showcase some useful features.

“Our discovery could transform the world of polymers and start a third chapter in their history: that of the ‘hybrid polymer,’” Stupp asserted. “This would follow the first chapter of broadly useful covalent polymers, then the more recent emerging class of supramolecular polymers.” The study was published in the Jan. 29 issue of *Science*.

Source: Science Daily



Worm research shows regular patterns of aging

Previously, aging was thought to be determined by statistically random factors. However, researchers in the lab of Walter Fontana, Harvard Medical School professor of systems biology, discovered patterns which provide insight into the aging process. When examining the life span of the *Caenorhabditis elegans* worm, the team discovered a surprisingly statistical regularity in genetic and environmental factors, suggesting that aging does not have a single discrete molecular cause, but is rather a systemic process involving many components within a complex biological network.

“There are many important molecular changes that occur with age, but it might not make sense to call all of them ‘causes of aging,’ per se,” said Novartis Fellow Nicholas Stroustrup, first author on the paper and leader of the research team. To monitor the worms’ life spans, Stroustrup constructed the Lifespan Machine, a device comprised of 50 flatbed scanners purchased from an office supplies store that are capable of recording 16 petri dishes every hour, totaling 800 dishes and 30,000 worms. The Lifespan Machine recorded how long it took the worms to die when certain factors were manipulated.

Source: Science Daily



Immune system gene leads to schizophrenia clue

On Jan. 27, a research team published a study in *Nature* that examined variants of a protein that severs nerve connections in the brain as a contributor to schizophrenia. This study marks the first voyage into biology for this research.

The study is the first time scientists have been able to move from genetic studies to a biological insight into schizophrenia risk, says geneticist David Goldstein of Columbia University. “Genetics got us there,” he said. “That’s why this is a big deal.” By examining genetic material of more than 60,000 people with or without schizophrenia, the team pinpointed versions of a gene within the major histocompatibility complex (MHC), a section of DNA that helps the immune system identify invaders, called complement component 4 (C4) that elevates the risk of schizophrenia.

C4 also helps control synaptic pruning, and too much C4 causes excessive pruning. According to Goldstein, some scientists suspect that synaptic pruning goes into overdrive in schizophrenia. Postmortem brains showed a deficiency of synapses, for instance. But this study is the “clearest, strongest evidence we have of synaptic pruning” being implicated in schizophrenia, Goldstein says.

Source: Science News



New technique changes nano-scale material production

Materials scientists at the University of Wisconsin-Madison have developed a novelty technique that creates nearly 2-D sheets of compounds that cannot naturally form such thin material. This 2-D nanosheet, just a few atoms thick, has huge implications for the future of electronic and biomedical devices.

“What’s nice with a 2-D nanomaterial is that because it’s a sheet, it’s much easier for us to manipulate compared to other types of nanomaterials,” said Xudong Wang, a UW-Madison professor of materials science and engineering.

The team applied a special surfactant to a liquid surface heavy with zinc ions. Due to differing charges, the surfactant assembles into a single layer at the surface of the liquid, forming a nanosheet.

“Under the correct conditions, a surfactant will self-assemble to form a monolayer. This is a well-known process that I teach in class. So while teaching this, I wondered why we wouldn’t be able to reverse this method and use the surfactant monolayer first to grow the crystalline face.” The researchers described their findings in the journal *Nature Communications* on Jan. 20.

Source: Phys.org



Carbon dioxide in air converted into methanol fuel

Recently, researchers have demonstrated that carbon dioxide captured from the air can be directly converted into methanol fuel using a homogenous catalyst. This process would be successful in removing harmful carbon dioxide from the atmosphere and in providing an alternate source of fuel to gasoline.

The study was led by G. K. Surya Prakash, a professor of chemistry at the University of Southern California, and Nobel Laureate George A. Olah, a distinguished professor at the University of Southern California. The researchers have published their paper on the carbon dioxide-to-methanol conversion process in a recent issue of the *Journal of the American Chemical Society*.

A key factor in the carbon dioxide-to-methanol conversion process was finding a good homogeneous catalyst, which would speed up the chemical reaction and produce methanol at a faster rate. “We will continue the studies to develop more robust catalysts that work around 100 to 120 °C,” Prakash said. “We would like to perform the chemistry in a preparatively useful way, wherein there are no solvent or reagent losses.”

Source: Phys.org



Proton beam treats cancer patients, fewer side-effects

According to new research published in *The Lancet Oncology*, proton beam therapy is as effective as other treatments and causes fewer side effects in children than conventional radiotherapy. Proton beam therapy uses charged particles instead of X-rays to deliver radiotherapy for cancer patients, and allows high-charged protons to be targeted directly at a tumor.

Researchers looked at 59 patients aged between three and 21 from 2003 to 2009. The study found that, after five years, the survival rate of the patients was similar to that of patients treated with conventional X-ray radiotherapy, but there were fewer side effects to the heart and lungs.

“The major finding is that proton therapy is as effective as photon therapy (conventional X-ray radiotherapy) in curing these patients,” Yock said. “What is also very exciting is that it is maintaining these high rates of cure but doing so with less late toxicity, which has dramatic quality of life improvements.” The U.K. Department of Health states that the treatment will be offered to up to 1500 cancer patients at hospitals in London and Manchester in April 2018.

Source: BBC.com
Compiled By
JULIA NAPOLITANO



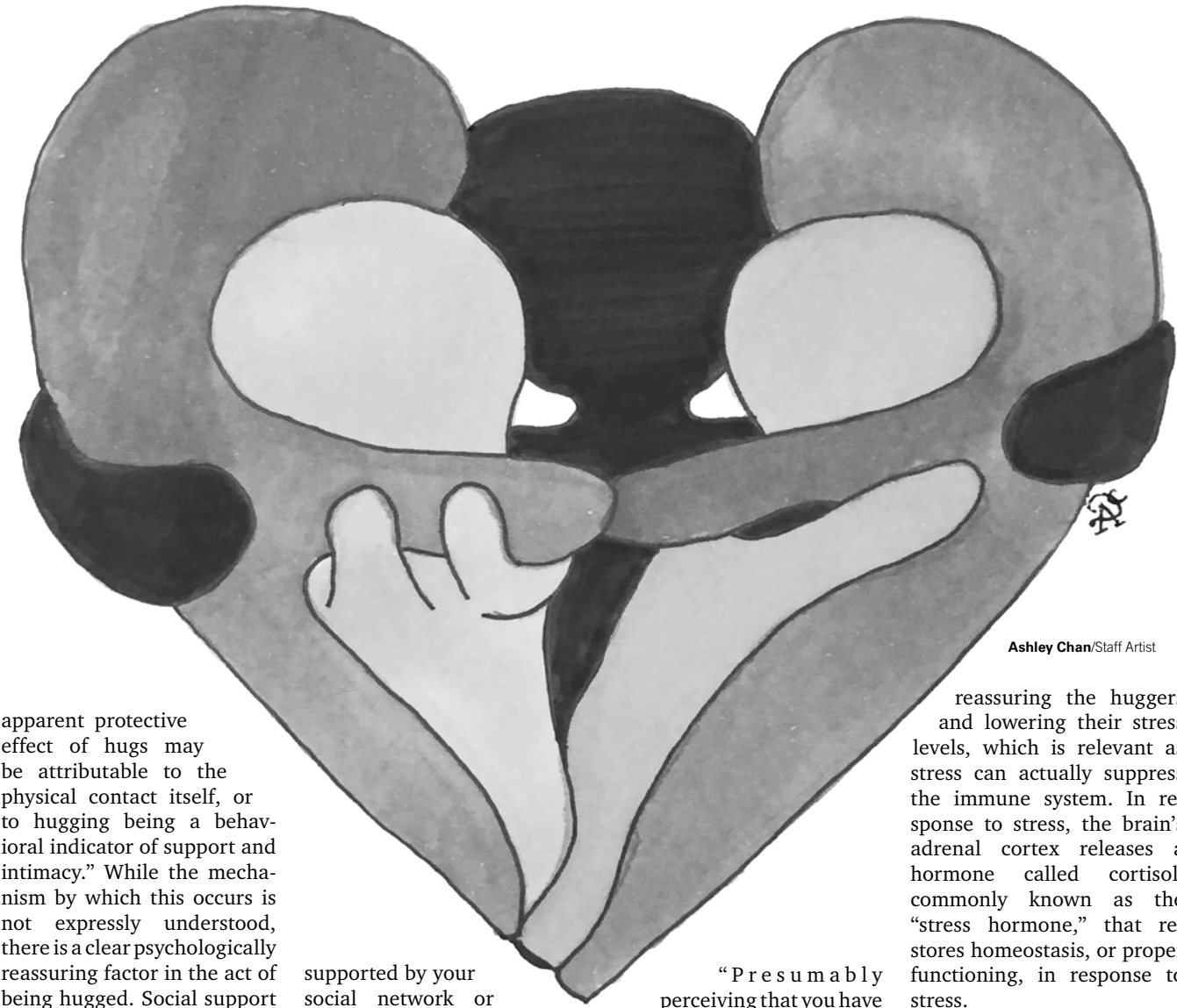
Hugs and social support linked to physiological benefits

JOSH BROWN
SciTech Editor

Hugging is an art. There are so many moving parts to keep in mind as you wrap yourself around someone else — arm placement, head and neck placement, hug duration. There are multiple types of hugs — the “bro hug,” the “grandma hug,” and even the “awkward acquaintance” hug. Now, there is even evidence that hugs have psychological effects that translate to physiological benefits. Research coming out of Carnegie Mellon’s Dietrich College of Humanities and Social Sciences has pointed to the immunological and stress-relieving effects associated with hugs, as well as an embrace’s connection with perceived social support.

The study, led by Sheldon Cohen, the Robert E. Doherty University Professor of Psychology in the Dietrich College of Humanities and Social Sciences, assessed 404 healthy adults’ perceived social support, frequency of hug reception, and frequencies of interpersonal conflicts and then exposed the participants to a common cold virus. The researchers then observed the individuals in quarantine to assess the infection’s progress.

The data suggests that hugs were responsible for one-third of the protective effect of social support. In a university press release, Cohen said, “The



Ashley Chan/Staff Artist

apparent protective effect of hugs may be attributable to the physical contact itself, or to hugging being a behavioral indicator of support and intimacy.” While the mechanism by which this occurs is not expressly understood, there is a clear psychologically reassuring factor in the act of being hugged. Social support in psychology is perceived or actual care provided by a social network, such as friends, family, or coworkers. Social support is, in essence, confidence that you will be

supported by your social network or the act of actually being supported by people. Social support affects people by “altering [their] perceptions of their abilities to cope with adverse events,” said Cohen.

“Presumably perceiving that you have adequate support reduces the potential threat and impact of a stressful event.” Hugs essentially act as a physical manifestation of social support, effectively

reassuring the huggers and lowering their stress levels, which is relevant as stress can actually suppress the immune system. In response to stress, the brain’s adrenal cortex releases a hormone called cortisol, commonly known as the “stress hormone,” that restores homeostasis, or proper functioning, in response to stress.

According to data from the *Dartmouth Undergraduate Journal of Science*, one of cortisol’s many functions is to suppress the immune system. This means that during

stressful situations, especially long-term ones, stress has an immunologically suppressive effect on the body, making one more prone to infection and disease. Interpersonal conflicts are one possible cause of this type of stress. If someone is in conflict with members of his social group, for instance, this results in him feeling isolated, and this stress results in immune suppression, which in turn, can lead to an increased susceptibility to illness caused by increased cortisol in the blood.

This is where the health benefits of hugging, and in a larger sense, social support, come into play. Feeling socially supported can mediate these stressful feelings, and in doing so, affect the levels of cortisol in the bloodstream, which will affect one’s immune system’s ability to fight invading bodies and defend against illness. In essence, hugs, as a marker of social support, can decrease the severity of symptoms and perhaps even the duration of an illness.

While hugs produce some psychological benefits, it is worth noting that hugging a sick person will not cancel out the chances of you getting sick. Germs aren’t nice like that. It may, however, help the person being hugged to recover faster. Next time you’re hugging someone, take comfort not only in their warmth, but also in the fact that you’re doing your body and your mind good.

PUGWASH

Mini-nukes: innovative or invitation for destruction?



Courtesy of Flickr Creative Commons

THATCHER MONTGOMERY
Contributing Editor

Last week in Student Pugwash at Carnegie Mellon, we returned to Pugwash’s roots and discussed a new development in nuclear weapons: mini-nukes.

While miniaturizing nuclear weapons (called mini-nukes or tactical nukes) doesn’t constitute complete disarmament, it’s a step in the right direction, or so claims the Obama administration, which is behind the effort to reconfigure older nuclear weapons into a modern, mini-nuke format.

These new mini-nukes would be mounted to precision cruise-missiles and would have a “dial-a-yield” feature, allowing them to adapt in explosive power to match their target. The lowest

setting would be 2 percent of the yield of the bomb dropped on Hiroshima.

The lowest setting is what has people worried. If nuclear weapons become much less dangerous, with less fallout, what is to stop the military from using them in less-than-apocalyptic scenarios? Would they be used preemptively, instead of only in response to a nuclear attack? What do they mean for the theory of mutually assured destruction (MAD), the idea that no two nuclear-armed countries will ever fire on each other due to the consequences of retaliation? This is a frightening scenario, but it also encourages countries to resolve conflicts through methods other than all-out war.

While mini-nukes might be smaller and less destructive, the threat of MAD would still be maintained, either through the amount of mini-nukes, or by keeping some of the larger-scale warheads.

Because the United States

still needs to have enough capability to enforce MAD (otherwise another country could destroy the United States without fear of retaliation on the same scale), some question what the point of miniature nuclear weapons even is. If they have the same overall destructive yield, then why would it matter what size they were? What’s the point in making them precise if the only case in which they would be used in would be total Armageddon?

And that’s where the worry comes in. If nuclear weapons are more accessible, if they don’t have such massive collateral damage, then maybe they aren’t such a red line to cross. Maybe someone will be tempted to fire off one or two of these little nukes simply because they’re much smaller and easier to use than conventional weapons of the same size.

If they’re only being used in the same destructive scale as conventional weapons, then

maybe putting nuclear weapons back in the battlefield wouldn’t be so terrible. By removing their huge destructive power, nukes would no longer be the game-changer they were after World War II. However, keeping the nuclear weapons under a threshold level of explosive yield would be hard.

Most countries have a “fire-all-weapons” response policy to any nuclear weapon use. Even if the policy were changed, it would be hard to measure exactly the size of the mini-nuke, and what would happen if someone crossed the line, just by a little bit? The upwards creep in yield seems almost inevitable were mini-nukes to come into conventional use, which is why they most likely won’t be used, at least by respectable governments. The same sort of agreements against chemical weapons or bombing hospitals would also be made against using mini-nukes. This again brings up the question:

if they aren’t to be used, then why do we need them?

Although mini-nukes are supposed to be a step toward disarmament, it seemed as though most of Student Pugwash was skeptical by the end of the meeting. Providing no clear benefit, miniature nuclear weapons still hold the same dangers as traditional nuclear bombs, only with the added concern that they might actually be used.

Pugwash is a national organization focused on open discussion of ethical issues in science. The original Pugwash conference took place in Pugwash, Nova Scotia, in 1957, sparked by the Russell-Einstein manifesto, which called for nuclear disarmament and peaceful conflict resolution. Student Pugwash is a non-advocacy, educational organization on campus that discusses the implications of science, technology, and medicine on society. This article is a summary of last week’s discussion on the miniaturization of nuclear weapons.

Experts confirm elements

ELEMENTS, from A6

the process has taken between two and three years. Though it is a long time, it involves very careful wording and rewording of the team’s interpretation so as not to criticize the founding researcher. They are very careful not to discourage researchers from performing challenging experiments, and the committee makes it a point to be as clear as possible with their concerns.

“Our draft recommendations are then sent to the laboratories themselves for technical review, not of our recommendation, but of the data we considered and the understanding of the chemistry and physics involved. That review takes a few months,” Karol said in an email interview with The Tartan.

“Back then to us for possible/probable revision, and then out to the International Unions for peer review, followed by the inevitable revisions and ultimately to the journal [*Pure and Applied Chemistry*] for editorial revision. All this chews through the calendar.”

As the chair of JWP, Karol said that he is always excited about new element discoveries. “They are becoming more and more difficult to achieve, yet more and more informative about what lies ahead, as far as possible surprises are concerned.”

Though there are no practical applications of these newly discovered elements in the near future, Karol proposes that “if the chemistry is explored, it will give an important handle on what are the effects of relativity on chemical behavior for these very heavy atoms since the imposition of relativistic effects on electron properties in atoms is still theoretically primitive and further known chemistry would be of enormous use.” Further research in this field would allow committees such as Karol’s to confirm new elements with much more efficiency.

Cam Newton unfairly criticized for celebrating success

ZEKE ROSENBERG
Senior Staffwriter

Sports have always been surrounded by all sorts of superstition. Every baseball player has an at-bat ritual. Basketball players have free throw routines so specific that Houston Rockets guard James Harden once went to give high fives to the air while taking free throws in an empty lane. Those superstitions are sacrifices to a much more powerful force, the sports gods: the unknowable, omnipotent beings controlling all sports outcomes.

The football gods in particular have found themselves invoked numerous times this month by football journalism’s old guard and a few letters to the editor in *The Charlotte Observer*. What is it that these sacred overlords have been sent to punish?

A cursory glimpse at the hand wringing throughout the football journalism world would indicate that one man is to blame for everything wrong with football today. That man is none other than Carolina Panthers quarterback Cam Newton.

What is Newton’s crime? In his own words, he’s “an African-American quarterback that may scare a lot of people because they haven’t seen nothing they can compare me to.” Evidence suggests he’s absolutely right about

that assessment.

Newton catches the most flack for hitting the dab and otherwise dancing after he scores touchdowns.

The fact that this upsets people is baffling. Cam Newton celebrates when he scores a touchdown. He plays the game with the joy and excitement of a little kid. Childish qualities generally have a negative connotation, but there’s one thing everyone loves about children and that’s how happy they get when good things happen. A viewer has no stake in the outcome of a football game unless they’re gambling. It’s for entertainment. Don’t we want to watch people be excited when they accomplish things? There’s no excitement in everyone just putting their head down and playing — the game would have no character. There would be no emotional reaction to winning or losing because there would be no cost or payoff to outcomes, and that would be incredibly boring.

This only leaves one explanation for the vitriol. Green Bay Packers quarterback Aaron Rodgers mimics a title belt after he scores a touchdown. New England Patriots quarterback Tom Brady screams until he’s blue in the face when the Patriots don’t score touchdowns. They never get any significant sort of pushback. However any time a black

player starts dancing, sports journalists are suddenly yelling about what bad role models they are.

The most disturbing and virulent example from recent years is when Washington Wizards point guard John Wall came out doing the dougie before a game. Colin Cowherd ripped Wall’s dancing apart, compared it to a bank robbery, and said he did not have the IQ to play the position. He then dug his heels in the ground as Wall rose to superstardom saying “I’m a big believer when it comes to quarterbacks and point guards, who’s your dad?” It’s even worse when you factor in that Wall’s father died of cancer when Wall was eight years old, but the racial implications behind that are absolutely screaming.

The calls to the football gods to punish Cam Newton for his dancing and his failure as a role model are no different. Newton was even called out in a letter to the editor in *The Charlotte Observer* for failing to marry his girlfriend who gave birth to his son, further invoking the stereotype used to question Wall’s intelligence five years ago. Black players have their behavior policed in discursively violent ways, all hiding behind the idea of a platonic athlete that is seen and not heard. That’s a stunningly dehumanizing way to treat someone and it has a long



Courtesy of Parker Anderson via Flickr
Cam Newton smiles into the crowd as he takes the field for another dominant performance against the Titans.

history of being used to mask racism as well.

I don’t know anything about Cam Newton personally, so I can’t say he’s a wonderful perfect human. Sure, tearing down opposing fans’ banners after games is mean, but it’s no worse than, say, when Philadelphia Eagles wide receiver Riley Cooper shouted that he would fight any black person in a concert, using more violent language. He’s now often praised for his work ethic. Newton has not done anything significantly wrong, and the anger directed his way is a scary barometer of sports journalism’s priorities.

When the Panthers and Broncos show down on Sunday in Super Bowl 50, two of the best quarterbacks in football’s recent history will go to work, and if Cam Newton runs in a game-winning touchdown, the football gods will hit the dab right there with him. I will be watching him with a smile.

SPORTS BRIEFS

Men’s Basketball

The Carnegie Mellon men’s basketball team traveled to New York to play the 22nd ranked Violets of New York University on Friday. The Tartans defeated the Violets 85–80.

NYU got off to an extremely fast start, establishing a 16–4 lead in the first five minutes and extending it to 21–7 soon after. The Tartans fought back hard, and first-year forward and center Patrick Ehland capped off a 15–2 run that put the Tartans up 39–37 to end the half. Although NYU again jumped to a large lead at the start of the second half, the Tartans closed in on the Violets. The lead changed sides several times in the final minutes of the game, but senior guard Jason Sebak’s free throws proved to be the difference in capturing the win for the Tartans. Sophomore guard Thomas Cook finished with a career-high 26 points, and junior center Chris Shkil contributed 19. The Tartans committed a season-low six turnovers.

On Sunday, the Tartans took on Brandeis University,

losing 81–67. Though the Tartans got off to an early lead thanks to Ehland’s efforts, the Judges were able to capitalize on a number of Tartan mistakes. Carnegie Mellon finished shooting 36.5 percent from the floor while the Judges shot 57.1 percent. Junior forward Jack Serbin scored 19 points for the team.

The Tartans now stand at 8–10 overall and 1–6 in the UAA. The Tartans will compete against NYU at home on Friday, Feb. 5.

Women’s Basketball

The Carnegie Mellon women’s basketball team competed at New York University on Friday. The Tartans lost a close 75–74 battle against the eighth-ranked Violets.

The Violets held the lead for much of the game, but the Tartans managed to keep the score close. Junior guard Jackie Hudepohl managed to score off an offensive rebound, getting the Tartans a 73–72 lead with 1:36 left in the game. NYU retook the lead with a three-point shot, but the Tartans still had hope left

when Hudepohl was fouled on with six-tenths of a second left to play. Though she managed to make the first free-throw, her second fell to the floor, and time expired before the Tartans could attempt to make another play on the ball. Hudepohl and junior center and forward Lisa Murphy both earned 16 points for the team. Murphy’s 16 rebounds helped her record her ninth double-double of the season.

On Sunday, the Tartans took on Brandeis University, winning 66–60. The game was a hard-fought battle over all four quarters, but the Tartans sealed the victory at the end of the game when they made four of six foul shots. Murphy led the team with 17 points, and senior forward Liza Otto scored 16. Murphy’s 10 rebounds recorded her tenth double-double of the season.

The Tartans now stand at 14–4 overall and 3–4 in the UAA. The Tartans will look to improve on their performance when they play a rematch against NYU at home on Friday, Feb. 5, and the competition will be fierce.

Men’s Track & Field

The Carnegie Mellon University men’s track and field team traveled to Case Western Reserve University for the 9th Annual Battle for the Obelisk on Saturday. The Tartan men defeated the Spartans 78–58, but Case Western retained the obelisk by winning 146–126 overall.

In the 800-meter run, sophomore mid-distance runner Evan Larrick crossed in 1:58.45 with senior mid-distance runner Marc-Daniel Julien just behind him in 1:58.52. Junior mid-distance runner Curtis Watro finished first in the mile in a career-best 4:20.46. The Tartans swept the 3,000-meter run with junior distance runner Ryan Archer leading the way in an 8:47.34 finish. Graduate distance runner Josh Antonson was second in 8:51.18 with sophomore distance runner Ryan Auld placing third in 8:51.95. Antonson later placed second in the 5,000-meter run in a career-best 15:17.01, while senior distance runner Brian Bollens was third in 15:23.03. The 4x400-meter relay team of junior sprinter Jonathan Perry, first-year sprinter Christopher Bayley, first-year mid-distance runner Isaac Mills, and junior mid-distance runner Owen Norley crossed first in 3:25.37 while the distance medley relay team of first-year mid-distance runner Mark Moody, Mills, Norley and first-year distance runner Jared Moore won in 10:42.05. Norley placed second in the 400-meter dash in 51.18. Junior hurdler and jumper Don Boyer was second in the 60-meter hurdles in 8.80 with junior hurdler Matthew Sheh crossing third in a career-best 8.85.

The Tartans swept the high jump with sophomore sprinter and jumper Cameron Smith taking first, clearing 1.80 meters. First-year sprinter and jumper Rai Walters and Boyer tied for second as they both cleared 1.75 meters.

Sophomore hurdler and pole vaulter Thomas Mansfield won the pole vault by clearing 4.10 meters. In the long jump, Walters leapt a career-best 6.95 meters, and sophomore jumper Eloy Fernandez won

the triple jump with a jump of 12.95 meters. Boyer was third in both jumping events with marks of 6.27 meters and 12.36 meters. The shot put saw sophomore thrower David Trzcinski win with a mark of 13.80 meters as first-year Kenny Sladick was third with a mark of 13.43 meters. Sophomore thrower Jacob Schofel placed second in the weight throw with a mark of 14.67 meters.

The Tartans will next compete at the Denison University Bob Shannon Invit on Saturday, Feb. 6.

Women’s Track & Field

The Carnegie Mellon women’s track and field team lost 88–48 to Case Western on Saturday at the Battle for the Obelisk. The Tartans will next compete at the Denison University Bob Shannon Invitational on Saturday, Feb. 6. The rest of the details about Women’s track and field competitions can be found online.

Compiled by
IAN TANAYA

UAA Basketball Standings									
Men’s				Women’s					
Univ.	Conf.	W	L	Univ.	Conf.	W	L		
CMU	1–6	8	10	NYU	5–1	16	1		
Wash. U.	2–5	10	8	Rochester	5–1	15	2		
CWRU	2–5	9	9	Emory	1–5	10	7		
Rochester	5–2	12	6	Wash. U.	5–1	14	3		
Emory	6–1	13	5	Brandeis	2–4	9	8		
Chicago	5–2	14	4	CMU	2–4	13	4		
NYU	4–3	14	3	CWRU	1–5	6	11		
Brandeis	3–4	9	9	Chicago	3–3	11	6		

Upcoming Events

Men's Basketball
vs. New York University
at Carnegie Mellon University
Feb. 5, 8 p.m.

Men's Track and Field
Denison Bob Shannon Invite
at Denison University
Feb. 6, 12:00 p.m.

Men's Tennis
vs. Walsh University
at Carnegie Mellon University
Feb. 6, 1 p.m.

Women's Basketball
vs. New York University
at Carnegie Mellon University
Feb. 5, 6 p.m.

Women's Track and Field
Denison Bob Shannon Invite
at Denison University
Feb. 6, 12:00 p.m.

Women's Tennis
vs. California (Pennsylvania)
at Carnegie Mellon University
Feb. 6, 9:00 a.m.

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Sports

Pole vaulter Grace Yee takes control of the competition

IAN TANAYA
Asst. Sports Editor

Junior pole vaulter Grace Yee was recently named Eastern College Athletic Conference (ECAC) Division III South Athlete of the Week and Carnegie Mellon Student-Athlete of the Week for Jan. 18–24 for her performance at the Denison Lid Lifter on Saturday, Jan. 23. Yee broke the school indoor pole vault record clearing the bar at 3.20 meters in the second meet of the season. The record was previously 3.10 meters and set by Lisa Marion Garcia in 2011. This is the second time Yee has broken a school record. Last spring, Yee broke the outdoor pole vault record twice. At the Dave Labor Invitational on Apr. 18, Yee bested the 3.10 meter mark set by Garcia by clearing 3.21 meters. One week later at the University Athletic Association (UAA) Outdoor Championships, she cleared a career best 3.40 meters. Though she has already proven to be an excellent athlete, the materials science and engineering major is hoping to continue turning out excellent

performances on the road to nationals. At first, Yee wasn’t sure that she would have enough time to join the Carnegie Mellon women’s track and field team. “One of my orientation counselors was on the track team and was like ‘Hey, come and try it out,’” Yee said. She decided to take a chance and join the team. “The rest is history.” Whether it’s an unscored meet or a fight for the UAA Championship, Yee and the team are always prepared to give it their all. “I know what I need to do for warmups, what I need to eat, when I need to hydrate.” With the preparation down to a science, it’s no surprise that Yee is ready for anything. “Eyes on the prize. I always have a goal I want to reach.” The chemistry among team members is another critical component to the individual performances. “I would describe the team as a family. Everyone from the coaches to the trainers are very supportive of each other. Even though track is very individual, the team is very supportive for each other.” Yee credits both

the coaching staff and the upperclassmen for providing this environment for success. “The coaches are definitely the key to our success, and I also think the upperclassmen have given more effort to bonding with younger members over time.” The team has been steadily improving since Yee joined it as a first-year. In 2014, the team finished with a sixth place showing at both the UAA Indoor Championships and the UAA Outdoor Championships. In 2015, the Tartans finished fifth in the UAA Indoor Championships and sent one member of the team to both the 2015 NCAA Division III Indoor Track and Field Championships and the 2015 NCAA Division III Outdoor Track and Field Championships. This year, Yee is hoping the team will do even better. “The team has gotten a lot bigger, and a lot of the freshmen are very talented.” Considering her future beyond college, Yee is set on carving a new path. “My goal is to join the renewable technology industry. It’s been hard to see how I’m going to get there.” Yee, however, is



Courtesy of CMU Athletics
Grace Yee launches herself away from the ground in a pole vaulting event at a quad meet in the 2015 season.

undaunted by the challenges she will be facing. She knows that she will have quite a few friends who will help her make it through these tasks with as much encouragement as they already give her as she reads her next vault. “It makes a world of difference to know I have a community backing me up, and I always strive to return the favor.”

Tennis star Alla excels in both school and athletics

JORDAN SAFER
Staffwriter

A leader on the Carnegie Mellon men’s tennis team, singles player Abhishek Alla, said that playing for the tennis team gives him an outlet for competition outside of the classroom. The civil and environmental engineering senior from Hyderabad, India has showcased dominant play over the last couple years, competing as the Tartan’s No. 1 singles player for the past two seasons and being named an All-American in singles both years. When discussing his choice to participate in the team, he called attention to the break that tennis provides from a day full of academic activities. Alla embraces his participation in tennis for the sheer enjoyment of playing the game, alongside the competition. “I’m playing more seriously only because that’s a release from academics, and its more to fun to be on the court than to be somewhere else.”

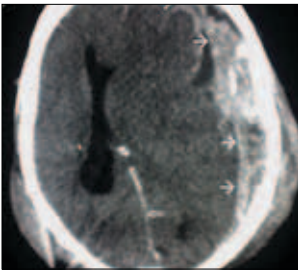


Courtesy of CMU Athletics
Abhishek Alla connects with a forehand swing against Johns Hopkins.

In high school, Alla competed at a sports academy where all students were involved in athletics. Coming to Carnegie Mellon was a big change, but luckily he made the adjustment successfully. “I came in prepared for [school] to be harder, and then I guess it started off going well the first few weeks and then it just kept going that way.” Entering school at Carnegie Mellon can definitely pose a challenge because of the amount of work for classes, and Alla noted that this creates an additional difficulty for athletes balancing time with sports. He points out that late in the season there is importance in “staying on top of all the academics so it doesn’t affect playing in the UAAs.” However, Alla also observed that the impact of sports can be a great positive force for the athletes in season. When in season, athletes learn to work efficiently for their classes, and use time outside of practice more effectively in order to

operate under the added time pressure. Alla explained that since tennis teaches the players about “unconsciously finishing work” when they aren’t playing, there is a lot of free time. “I couldn’t see myself not playing.... Without tennis you have so much more free time.” This makes a good lesson for the younger athletes, since Alla said that the younger members of the team are still learning to manage the heavy academic load and find balance with other activities. Alla sees losing sleep as the big pitfall to an student athlete looking to succeed in school and in tennis. He advised that “if you’re spending too much time on a problem you should just go to the TA and ask for help or just email someone instead of staying up for 12 hours doing it on your own.” Successfully adjusting to the academic workload will be key for the tennis team this season. With a strong first-year presence on the team that is sure to be large part of the winning formula. Alla explained that a strong first-year work ethic this season is helping the new players make up for the loss of three of last years seniors from the varsity team. Alla views this weekend’s upcoming competition against Walsh University as a good test of how both he and the team stack up competitively against the competition. In the tournament, he expects strong competition from both friendly and rival tennis players, including a strong players from both school whom Alla believes are likely to take the top seed in the match. In addition to being able to cope with added academic responsibility, Alla explained the significance of the coaching staff in allowing the tennis players from both the men’s and women’s teams to train efficiently through the season. The tennis coaching staff must deal with limited court openings throughout the day, organizing times for all athletes on both tennis teams to take advantage of the courts while they are closed to public use during the day. On the whole, Alla’s experience handling tennis along with a typical student workload helps him succeed both on and off the court.

Concussion rates on the rise, athletes risking health



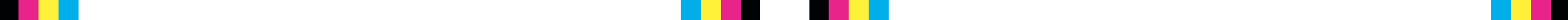
Courtesy of Mikael Haggstrom via Wikimedia Commons

ALEX WOOD
Sports Editor

Concussions and concussion awareness are by far the most popular topics in sports medicine right now. In the last decade, there has been a large shift in the culture and attitude surrounding concussions and their treatment. Many high-profile sports injuries involving concussions have brought this injury to the center of attention, and with good reason: the Center for Disease Control and Prevention estimates that up to 3.8 million Americans suffer concussions as a result of accidents and sports activities every year, and the amount of concussions in the NFL rose 32 percent from 2014 to 2015. This massive increase in concussion rates has prompted large-scale discussion on the dangers of concussions. A recent movie titled *Concussion* details a narrative of an NFL player that experiences significant mental deterioration as a result of multiple untreated concussions. The impact of this injury on athletes has come to the forefront of the sports medicine discussion, and scientists have only cracked the surface. Concussions sustained while playing football have been shown to be the cause of a disorder called chronic traumatic encephalopathy or CTE, which is known to lead to suicide and mentally debilitating symptoms after retirement from the NFL. For years, the NFL denied that there were long-term consequences to the frequent head trauma undergone by football players. Efforts to bring awareness to the subject began in 1994, but it wasn’t until 2014, when a study announced that in 79 autopsies of former NFL players, 76 of the them were diagnosed with CTE. The NFL has come into many legal issues with concussions as well. In 2012, Kansas City Chiefs player

Jovan Belcher shot and killed his fiancée before committing suicide in the parking lot of the Chiefs stadium. The team is being sued by the family of Belcher in a wrongful death lawsuit, claiming that the Chiefs ignored Belcher’s cries for help because of concussion-like symptoms. In 2013, five former Kansas City Chiefs players filed a lawsuit against the team, wishing to know just how much the team knew about concussions, and when they had that knowledge. The players felt they did not receive adequate treatment and thought they had the right to know that continuing to play football would put them at severe risk for disability later in life. The consequences of an untreated concussion are not to be ignored, and can potentially be fatal. So then what is there to know about how this dangerous brain injury works, and what exactly is it? A concussion is usually a short-term brain injury caused by a jolt or sudden impact to the head, and can result in mild disturbance of brain function, usually without loss of consciousness. More rarely, concussions can cause brain swelling and permanent injury. Symptoms of concussions include headache, dizziness, nausea, neck discomfort, difficulty thinking clearly, trouble focusing, and disturbed sleep patterns. Severe cases can include persistent vomiting, disorientation, unequal pupils, and partial or full loss of consciousness. If a person exhibits any of these symptoms, it is imperative that they receive an immediate and thorough evaluation of their symptoms by a qualified healthcare provider experienced in concussion evaluation. Without timely diagnosis and treatment, a mild concussion can potentially cause more serious complications including further brain trauma or a prolonged recovery. When treated, patients receive a standard set of instructions to manage the injury, including mental and physical rest. Generally, any activity that provokes the symptoms of the concussion should be completely avoided so as not to prolong recovery. These activities can include reading, texting, watching TV or playing video games,

and physical activity. School and the work associated with it can also worsen symptoms, and accommodations are often made for students with concussions, such as increased time for assignments or test taking. Most concussion patients return to sports or regular physical activities within three weeks after their symptoms begin. For athletes, the patient should be without symptoms for a full twenty-four hours before beginning physical activity. Once the patient has been without symptoms for a day, they begin a multi-phase progression of physical activity that may take several days if the patient has symptoms that return with increased physical activity. All athletes who sustain a concussion must pass an evaluation with specific criteria before returning to play, including final authorization from a healthcare provider that the patient is completely without symptoms. Traditionally, athletes that play contact sports such as football, hockey, and lacrosse are at higher risk for concussions, though the majority of these injuries are a result of falls or motor vehicle accidents by non-athletes. Young athletes in particular are at a higher risk of concussion and take longer to recover than adults because their brains and bodies are still developing. The frequency of this injury among young athletes around the country, as well as in professional athletes means that something must be done to protect the brains of these players. What needs to be looked at is exactly why concussion rates have risen so sharply in recent years, and how we can create an environment that will put young athletes at a much lower risk of serious brain damage due to contact sports. But for now, the important thing to remember is that if you experience these symptoms, or see someone experiencing these symptoms after a head injury or physical activity with contact, get them to a qualified healthcare provider immediately for an evaluation. Even a mild concussion left unchecked can result in serious brain damage. Simply knowing the signs can save someone’s mind.





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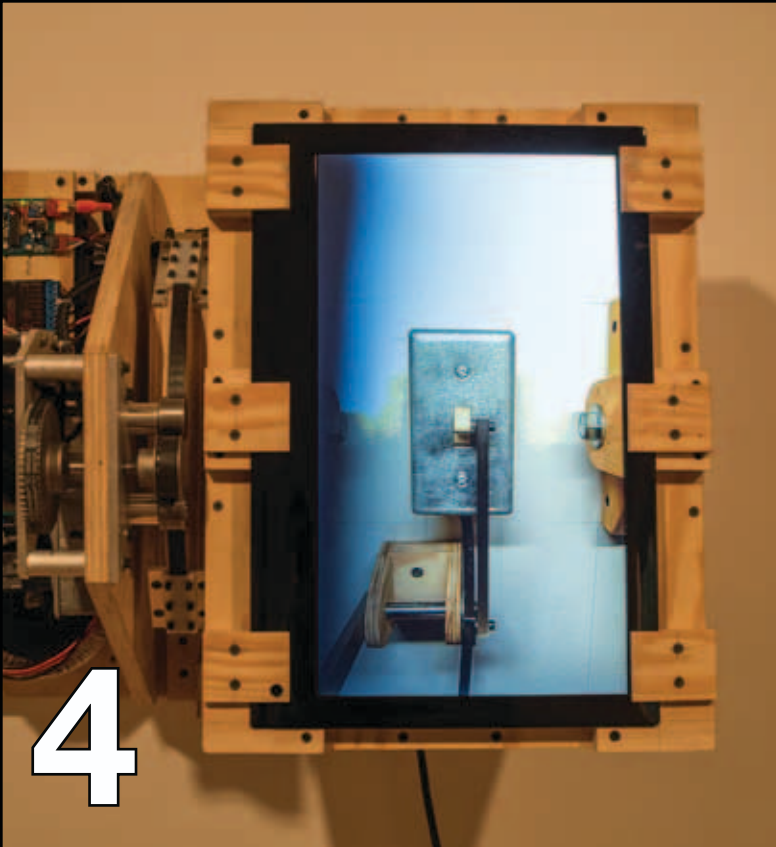
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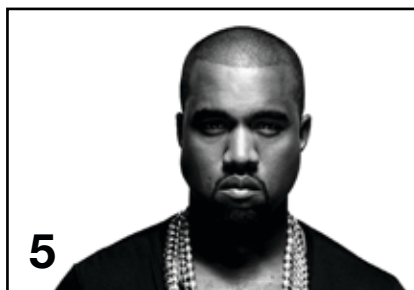
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Mozzarella Sticks done right

Teach McDonald's how to make some real Mozzie sticks

One of my greatest worldly passions is fast food. I love that I don't have to wait in long lines. I love that if I spend more than five dollars it's my own fault, and that it's all so chock-full of delicious things that make you worry you might die at any point. Risk is what makes life exciting.

Recently, however, McDonald's has played with my heart, and the hearts of millions of other blue-blooded Americans who just want inexpensive fried fast food without having to get out of the car. They expanded their menu with the addition of mozzarella sticks. Fried cheese on the dollar menu seemed like the best present McDonald's could give us. This is one of those delightful comfort food options that you can have delivered with your pizza but not at a fast food restaurant. Sadly, we got our hopes up.

But once McDonald's began to actually produce and sell their mozzarella sticks, many customers were in for an unexpected disappointment. The familiar cardboard take-out boxes contained three sticks of breading. But those sticks of breading did not contain any cheese. **Cheese** — the basis for mozzarella sticks.

Several users on social media posted photos and tagged McDonald's to express their confusion, disappointment, even anger. McDonald's responded with a confusing excuse: the cheese melted out while it was baking. First of all, I don't understand how that much cheese just escapes in the oven, completely unnoticed by the line cooks. But even worse, why on earth are they baking their mozzarella sticks? The appeal of fried cheese is that it is fried. McDonald's has rows of deep fryers, so why can't these mozzarella sticks get a comforting oil bubble bath too?



Courtesy of Wikimedia Commons

If there's one thing we've learned throughout this disaster, it's that you can't trust anyone. If you want something done correctly you have to deep fry it yourself.

Mozzarella Sticks, adapted from *allrecipes.com*
2 eggs
1/4 cup of water
1 1/2 cups Italian seasoned breadcrumbs
1/2 teaspoon of garlic salt
2/3 cup of all-purpose flour
1/3 cup of corn starch
1 quart of oil for deep frying — canola, vegetable, or peanut, depending on your priorities
1 16-ounce package of mozzarella string cheese

Something I think more people need to embrace is that you don't need a deep fryer to deep fry things. All you really need is a large pot of oil, a thermometer, and some diligence. The real trick is finding out what heat-setting on your stove will keep the oil at the right temperature. For your mozzarella stick, the oil should hang out around 365 degrees Fahrenheit. Depending on your stove, this will be around medium heat.

Now it's time to prep the breading assembly line. You'll have three bowls: flour and corn starch, egg and water, and the bread crumbs. Once you unwrap the cheese sticks and cut them in half, you can start to dredge! Each stick will go first in the flour mixture, then the egg mixture, and finally in the breadcrumbs. For best results, do this twice.

It will result in a mozzarella stick that's extra crunchy on the outside while the cheese has enough protection to get nice and melty.

Only fry one to three mozzarella sticks at a time. If too many sticks are in there at a time, the oil will get too cold and will result in soggy breading. In my personal opinion, soggy breading is almost worse than hollow breading. The sticks will only need about 30 seconds in there, so pull them out and let them drain on a plate lined with a paper towel.

This may involve some more time and total money than a trip to McDonald's would require, but in the end, you have mozzarella sticks that you can guarantee will be delicious and cheesy. In the end, it's totally worth it.

Sarah Gutekunst | Publisher

Advice for awkward people

About aesthetics, ugly babies, President Obama sneezing, and Tyra Bank's facial expressions

Hi Josh,

I've got a very strange but really severe problem. Throughout the year, I've seen so many of my friends grow as people, and I've remained pretty stagnant. I feel the same as when I came out of high school, and it makes me sad. I've been wracking my brain, trying to find the secret to their success and the reason I've been left so far behind, and finally I've settled on one super important thing that every one of my friends has, but I've never been able to obtain: an aesthetic.

It's so hard to find one, especially because I don't quite know what it is. I've studied all of the usual suspects that my friends identify as their aesthetics: ugly babies, President Obama sneezing, Tyra Banks's facial expressions, all to no avail. I find it so strange how each and every one of my friends can claim an aesthetic so quickly in everyday conversation.

I've even tried to claim one before them, but I'm not well-versed enough in the realm of aestheticism to differentiate an aesthetic from a regular sentence or annoying sound.

Once, a bunch of us were sitting around, and an old lady slipped and fell in front of us, and I was like "That's my aesthetic." Everyone just looked at me for a minute and then went to see if the lady was alright. Got any advice? Will I ever be cool enough to have a sweet aesthetic?

Signed, Fragile, Aesthetic-free Individual Looking for an Understanding of Real-world Excitement

Hey FAILURE,

I'm sorry to hear that you're having such an existential crisis. I'm not sure what you've heard or what exactly you've been studying, but your friends are probably just being ironic and using a humorous turn of phrase. Having an aesthetic, or a certain appreciation of beauty, a style, a creative philosophy, is not necessary for everyone. If you don't have a daily creative pursuit by which you're examining the world, it's not crucial for you to have a fully fleshed-out understanding of what you enjoy in that way. You'll be fine.

Peace, Love, and Puppy Dog Tails,
Joshua Brown

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

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Exhibit at Miller Gallery is intriguing

Maximum Minimum in Unum plays with viewers' minds

Friday afternoon, on the way home from the last class of the week, make a stop at the Miller Gallery. The current exhibition *Maximum Minimum in Unum* is an eclectic collection of fascinating pieces in a wide variety of media by alumni of Carnegie Mellon. The three floors of the gallery offer compelling glimpses into the power of minimalistic art of all forms.

The first floor of the gallery contains arguably the most fascinating piece of the whole show. This exhibit, titled *Furthering Cream*, was created by the Institute for New Feeling, a company of sorts run by Scott Andrew (MFA '13), Agnes Bolt (MFA '12), and Nina Sarnelle (MFA '12). This installation is a new part of their product line. The main component of the piece is a free-standing wall, from which, on two sides, steel gray soap dispensers are hung. The wall has cutouts on the bottom, and under each cutout is a towel, and under one, a pillow for the face. These two cutouts leave enough space so that individuals may lie underneath the piece. Though visitors to the gallery are not invited nor allowed to do this, on opening night of the show, two anonymous individuals lay in that spot as the production of the cream commenced.

Though I missed the performance, I was more than fascinated by the undertaking of these artists. The "cream," which was initially released from dispensers on the ceiling, turned the areas around the wall into a cave-like dwelling, with stalagmite-like rock formations. According to the artists, "a geological process that requires hundreds or even thousands of years is compressed into a two-week cycle of regeneration.

In addition to the wall with the cream itself, there was a sample of the liquid in the sort of bottle it is stored in, which has a unique rounded shape described as "boundary-free." *Furthering Cream* also showed an informational video about what the cream was exactly. Currently, the members of the Institute for New Feeling are aspiring to open a spa in Los Angeles someday in the future. The overall goal of the organization is to aid in the "development of new ways of feeling, and ways of feeling new." I loved the intersection of innovation, entrepreneurship, and aesthetics present in this piece, and though I feel like I have a tenuous grasp on its true purpose and use, it still fascinated me.

While not quite so grand and bizarre, the rest of the pieces in the gallery were equally thought-provoking. On the second floor, one of two video pieces called "Burning House," (by Carrie Schneider BFA '01) depicted a small house in the middle distance on a landscape, and the video was a time lapse of the house burning. When I went by, the video was showing a sunrise and there was something weirdly disconcerting and very cool about watching a house burn in such a serene setting. Another piece on the second floor which really caught my eye was Laleh Mehran's (MFA '97) *Entropic System*: a golden geometric shape with a sharp point was attached to a "drawing machine," which almost imperceptibly moved the point on the shape around in dark-colored sand, making small lines

and designs in a random — dare I say, entropic — way.

I am a sucker for glass art pieces, having a passion for art-making in the medium, so I also really liked Ron Desmett's (MFA '79) *Persephone's Garden*. Made from blown glass, cold worked glass, and other media, the piece had an air of a vase having been knocked over, spilling flowers and contents. There is something so satisfying in the beautiful twists of glass.

The show contained a couple pieces in reaction to the Black Lives Matter movement. Jina Valentine's (BFA '01) piece "Explication de texte: ... SHOT MY SON," was made in reaction to police violence against young, black men. In her artist's statement, Valentine acknowledged her inability to empathize with the mothers of such violence as trying to find words to convey the strength of their grief is impossible. Her piece is an homage to how language is limited in its portrayal of such tragedy and unrest. Valentine states that it is incredibly difficult to bridge between sympathy and empathy through just language.

Valentine invites you to take a sample of her piece: a folded newspaper. Instead of clear, legible text, the artist took the phrase "[...] shot my son," from *The New York Times*, and magnified it 20 times. On the pages of the newspaper, each of the individual words stand as a composite of hundreds of these scans. The work really forces the viewer to think about what can and cannot be understood, and what emotions can and cannot be truly communicated as hard as everyone may try, which is an important lesson when it comes to relating to others and their experiences.

Numerous other pieces in the exhibit are just as fascinating. It truly is incredible how so much can be done with so little. The Miller Gallery is open noon to 6 p.m., Tuesday through Sunday.

Lula Banker | Personnel Manager



Brandon Hong | Photo Editor

Several of the exhibits, such as the one above, are designed to provoke confusion and wonder in viewers.

Kanye West's *Waves* is likely to disappoint

Tracks released so far indicate a continuation to the decline from greatness that started with *Yeezus*

In case you weren't aware, on Feb. 11 the world is set to receive "the greatest album of all time," according to Kanye West. The album? *Waves* by Kanye West. This will be Ye's seventh studio album in what has already proven a legendary career, and while there are many (none so much as West himself) who are certain *Waves* will blaze new trails in hip-hop and set trends that will be followed for years, I personally think the opposite. I think *Waves* is going to stink, pretty badly, and I'll tell you why.

Kanye burst into the public spotlight in 2004 with *The College Dropout*, and from there released classic after classic for the next six years. His beats changed how rap sounded, his polo shirts changed how rappers looked, and his overall attitude allowed mainstream rappers to be artistic and sensitive instead of simply dangerous. Without Kanye there is no Kid Cudi, no Drake, no Kendrick, no Lupe Fiasco, no J. Cole. In 2007, Kanye was mixing rap and dance music and introducing a new generation to Daft Punk with "Stronger" two years before The Black Eyed Peas released "I Gotta Feeling" and the EDM explosion began. Kanye's taste-making abilities were so respected that George W. Bush — whose time in office saw 9/11, the Iraq War, and Hurricane Katrina — said that Kanye saying he didn't care about black people was one of the worst moments of his presidency! How's Bush going to come back from such a diss?

In 2009, Kanye had his own career low-point when he rushed the stage to proclaim Beyoncé's music video was better than Taylor Swift's at the VMAs. After that, everyone in the world seemed to think West was the biggest "jackass," to borrow President Obama's exact words, in the world. Under that cloud of intense public scorn, Kanye retreated to Hawaii to create what will undoubtedly go down as his masterpiece: *My Beautiful Dark Twisted Fantasy*.

Fantasy has no real equivalent, whether it is amongst West's catalog, the wider rap catalog, or popular music in general. It's an album that sounds so unique and so fresh that it could be released in seemingly any era and would still sound just as trailblazing. He struck the perfect chord between electronic sampling experimentation ("Runaway"), pop bombast ("All of the Lights"), and straight up aggressive, old-school swagger rap ("Monster"). While his status as an underdog, both in the rap game and life in general, had always been a staple of his lyrical content, on *Fantasy* it took a darker, deeper tone. The world had held up a

mirror and West had finally seen his reflection, and he was man enough to admit that he didn't like one bit of what he saw. But instead of letting the world defeat him, he channeled that energy to produce something that would make the world love him again.

And we did love him again, and Kanye heartily reaped the rewards. He released the victory-lap *Watch the Throne* with Jay-Z, designed bags for Louis Vuitton and shoes for Nike, and finally married his princess, Kim Kardashian. He's got a family, and he seems genuinely happy and fulfilled by his creative pursuits outside of music — and that's the problem. Beginning with 2013's *Yeezus*, which was listenable when it came out but has now completely faded from the public consciousness, it seems clear we are in the "decline" period of Kanye's career; the falling action in the Shakespearean drama that has been his life.

The two tracks that he's released in anticipation of *Waves*, "Real Friends" and "No More Parties in L.A.," don't stand out in the rap game the same way his earlier stuff always did. While the beats are good, they don't sound radically different from what anyone else in the genre is doing. While his flow is on point, his lyrical content is flat and generic. Gone are the days of a young upstart raging against the system, his contemporaries whom he always saw as competitors, and most of all himself. Now he just raps about his

lux life, how he's got a hot wife and lots of money and how he's basically the King. The life of a King isn't interesting or engaging, that's why it's the Princes that control rap now, the Drakes and the Kendricks — the ones who are all competing to become the next Kanye. West is a lame duck, waiting for the next guy to be sworn in.

Kanye West has had a great career, one of the best in music history, and it's no problem that he's on the decline. Every artist reaches a creative peak — it's part of the natural life cycle of the creative culture, and West has certainly left a sizeable mark on ours. Go look at Kanye West's profile on your Spotify. I bet that you have more friends also listening to Kanye than any other artist. Everybody has at least one Kanye track they like, because he touched on virtually every genre that has been popular during his career.

So *Waves* will come out, and a lot of people will listen to it, and say that it's "pretty good." But then something else will come out and the public will move on and let *Waves* slip away from their Recently Played playlists. Out with the old, in with the new.

At the very least, Kanye will always have the best Twitter. #wizwearscoolpants

Joey Peiser | Contributing Editor



Courtesy of Wikimedia Commons

Kanye West, the man himself, in the kind of attire he popularized within hip-hop.

Banksy ridicules French refugee response

With his first 2016 installation, Banksy tears into terrible conditions at the Calais Refugee camp

The works of Banksy, a London-based guerrilla street artist, have been both adored and criticized for some time now. Although Banksy's real identity remains, for the most part, unknown, his art is strongly recognizable due to signature stenciling techniques and strong use of political epigrams in his work.

Beginning in the early nineties, Banksy emerged onto the art scene in London as a talented, freehand graffiti artist. During the late nineties and early 2000's, Banksy began implementing stenciled graffiti art into his art pieces, which were now almost exclusively street art installations. Around the same time that Banksy began using stencils, his street art began to reflect stronger political and ethical views and opinions. Much of his work, usually satirical in nature, eludes to an anti-war, anti-hate, anti-capitalist movement. His work often times mocks centralized power and criticizes government authority for their role in the poverty, despair, and alienation of powerless individuals.

Because his work is primarily unprotected street art open to the public, many of his works have been concealed, stolen, or even destroyed. With Banksy's strong political views so present in his work, it probably comes as little to no surprise that a great deal of his art has been destroyed or removed from its original location by government officials who find the artwork offensive or inciting. A large amount of Banksy's work over the last several years has specifically targeted and criticized officials in both the U.K. and France. This was exactly the case this past week, when government officials ordered that Banksy's most recent work be removed from its original location.

The mural was painted across the street from the French Embassy in Knightsbridge, London on wooden panels of a developing construction site. The work featured the iconic image from *Les Misérables* — a young girl, Cosette, standing in front of the French national flag. In the mural, young Cosette is crying while she is overcome by teargas as the empty gas canister lie beside her. Off to the side of the mural was an interactive QR code, which onlookers of the mural could scan via their mobile phones. The QR code was linked to video footage of French police using teargas on refugees in a camp in Calais, France.

The Calais refugee camp has become known as "The Calais Jungle," or simply "The Jungle," due to its muddy, swampy, and rundown conditions. The Jungle is now home to over 6,000 refugees, many of which are orphaned children. A large number of migration

attempts from The Jungle to the U.K. are reported every day. Government officials from both France and the U.K. have been criticized in the passed year for violent intervention methods they have taken to try and control the situations in the refugee camp. Banksy's mural draws attention to and highly criticizes the cruel treatment of refugees in the Calais Refugee Camp, and focuses specifically on French police brutality and their alleged increase in use of teargas to control the refugees. Attempts were made by the embassy to remove the mural within days of it being erected. Photographs taken of the mural before it was taken down reveal the damages to the wood, possibly by crowbars or hammers, which occurred during these apparent removal attempts. After failing to remove the wood on which the mural was painted, the embassy ordered that the mural be concealed from the public, because it was "slandorous" and "incited unnecessary anger from the public." Onlookers watched and took photographs as a team of men boarded up the mural. Within the last several days, the boarding was allegedly taken down and the mural was revealed once again to the public. This happened several times over the course of three or so days, until the embassy inevitably ordered that the developers on the site remove the mural permanently.

This is not the first time, and likely not the last, that Banksy's work has criticized the treatment of refugees in Europe and elsewhere. The *Les Mis* mural is likely part of an ongoing series by Banksy that emphasizes unjust treatment of refugees specifically residing in The Jungle.

He previously painted a mural of Steve Jobs outside the entrance to the camp, highlighting the fact that Steve Jobs, a brilliant and exceedingly successful individual, was son to two Syrians that immigrated to the United States.

New coverage of responses to the mural reported almost unanimous opinions by the public. Many onlookers hope that the striking image of France would tug at the heartstrings of those who hold the fate of the refugees in their hands. Others hoped that it would bring awareness for those suffering in the camps at the Calais Refugee Camp, and in refugee camps all over the world. In response to the mural being removed, many argued that the mural was covered because the French government is ashamed of what it has done, or that it likely has something to hide.

Many artists in the political street art movement share similar opinions. They believe that art should not only be enjoyed for what it is, but admired for what it is capable of. Art can be a powerful tool for sending a message during times of extreme anguish and despair. Art can be a means by which the public is exposed to the injustices brought unto them by the authority under which they reside. Art has an undeniable ability to become whatever we make it and it is my personal hope that artists like Banksy continue to use art as an avenue for change.

India Price | Online Editor



An interpretation of Banksy's infamous "Rage — The Flower Thrower," a piece originally created to both support and subvert protest movements.

Maegha Singh | Art Editor



Bullet For My Valentine speaks to The Tartan

Lead Singer Matt Tuck opens up about his songwriting and their new record — *Venom*

Bullet for My Valentine is a Welsh heavy metal band from Bridgend formed in 1998. The band has achieved significant mainstream success, especially when compared to other heavy metal bands, with millions of record sales and two gold records in the U.S. alone. In anticipation for their U.S. Tour, which includes a date in Pittsburgh at Stage AE on Feb. 24, The Tartan got to sit down with lead vocalist for the band, Matt Tuck, and talk about the band's history, music, and their newest album — *Venom*. *Venom*, which Tuck emphatically describes as the band's best work, recently debuted at No. 1 on Billboard's Hard Rock charts.

Venom, in its sound, is perhaps the most intense Bullet for My Valentine album yet. Tuck, in large part, directed the sound of the album; I asked him about some of the experiences he drew from in crafting the songs on the album. One such experience he told me about was the song "You Want a Battle? Here's a War." The song reflects his own upbringing in a way — the driving lead guitar and aggressive instrumentation set over a bombastic beat is reminiscent of Tuck's time growing up in Wales, without anyone to rely on. "My teachers didn't really get me. They tried to get me to abandon being in a band, but there just weren't any other opportunities in the area. The band was who I was." Tuck says he was picked on frequently for being in a band and liking metal music as a kid, and wanted to make a song that fans, both his age and younger, would identify with.

Another song that has some emotional significance for Tuck is what he calls his favorite song of the album — the opening track "No Way Out." The song, for Tuck, "is a great summary of where the band is, musically speaking, and where it wants to be. I love all of the different components of the song. The middle has a technical guitar-heavy piece for all the real guitarheads out there, the thrash of the verse is just pure energy. We really didn't want to hold anything back or pull any punches." The song certainly embodies the tone and musicality of the album. It also harkens back to Tuck's childhood about his frustrations with not being able to express himself as people in his life seldom supported his avenues for ambition.

Finally, we talked about the titular track "Venom." A departure from the aggressive tone midway through the album, "Venom" is best described as a brooding ballad, with more melodic singing in order to emphasize an emotional bent in the song. The song's subject, about a harrowing love-hate relationship, is not one Tuck says

strictly applies to him in his life, but a song that he still found immensely enjoyable to write. "It's about being in a relationship with someone who is almost poisonous in the way they're affecting you, which is why we named the track the way we did." The song also speaks to the genre-bending capabilities of Tuck, who has named unlikely sources such as Bob Dylan as songwriting inspirations. "We just do what we do. People have a hard time categorizing us — some people say we're metal-core, other people say we're more on the hard rock side. We just make music, kept things simple and let the songs do the talking." I think the willingness and adeptness with which Tuck crosses genres speaks to his skill as a songwriter and an artist. Not many metal bands are comfortable with putting a love song like "Venom" in their tracklist for fear of losing credibility, but Bullet for My Valentine's unapologetic uniqueness is one of the main factors of their success.

I would personally recommend seeing Bullet for My Valentine at Stage AE on Feb. 24. Their tracklist always includes a good bit of improvisation for fans who want music beyond what they've heard before, and their live presence is always entertaining. The tracklist will be composed of approximately six songs from *Venom*, and eight fan favorites from older works. The raw energy present in *Venom* should lend itself to the band's most bombastic concerts yet, definitely not something to miss for any metal fan out there.



Courtesy of Wikimedia Commons

Matt Tuck, lead vocalist for Bullet for my Valentine in his natural element on stage with a guitar and microphone

Sid Bhaduria | Staffwriter

Abhishek Tayal | Pillbox Editor

moviesinmconomy

McConomy Auditorium, University Center

The Good Dinosaur

Friday, Feb. 5
10:30 p.m.

Saturday, Feb. 6
8 p.m. & 11:30 p.m.

Director: Peter Sohn

Cast: Raymond Ochoa (Arlo), Sam Elliot (Butch), Frances McDormand (Mamma), Jeffrey Wright (Poppa), Jack Bright (Spot)

Rotten Tomatoes: 76 percent

Luckily for young Arlo, his parents and his two siblings, the mighty dinosaurs were not wiped out 65 million years ago. When a rainstorm washes poor Arlo downriver, he ends up bruised, battered and miles away from home. Good fortune shines on the frightened dino when he meets Spot, a Neanderthal boy who offers his help and friendship. Together, the unlikely duo embark on an epic adventure to reunite Arlo with his beloved family. On the way, they encounter all kinds of amazing creatures, and form a bond between man and animal that defies the expectations most viewers would have. *The Good Dinosaur* is a brilliantly put together piece of feel good cinema that can make for a happy Friday or Saturday night after a week of classes.

Gotta Go Here: a column on cool places in the city

Row House: Far more than just a cinema, this place is a community

Situated on Lawrenceville's Main Street, Row House Cinema is a one-screen theater that has been screening a delightfully quirky range of films since it opened in June 2014.

"Who wouldn't want to own a theater?" said Brian Mendelssohn, owner and curator of Row House Cinema. Mendelssohn has been showing movies now for almost two years, but has been a film-lover his entire life. Recalling conversations about film with his brother and friends, Mendelssohn says his goal with Row House is to continue the conversation with a larger audience.

The theater, while hidden away, is unexpectedly inviting. One of Mendelssohn's goals is to educate and introduce people to films and film movements that they never would have considered by packaging diverse pictures into week-long themed events. For example, "French vs Hong Kong New Wave" week featured *Made in the U.S.A.* and *Le Cercle Rouge*, as well as *Fallen Angels* and *The Killer*.

This lesson in how film movements happen differently across cultures and countries was something that many casual moviegoers would have never known without Row House making it accessible. These themed weeks can also take a lighter tone. For instance, "Tight Pants Week" is coming up. While many people enjoy tight pants, not a whole lot of them have seen David Bowie grace the silver screen in *Labyrinth*. What a shame, right?

The first thing to know about Row House is that anything goes when it comes to showing films. Expect the old classics, foreign films, and highly acclaimed — but also be ready for some newer titles, ironic callbacks, and cult classics. The owner and staff curate based on their own gamut of experience with film and hope to soon incorporate the community in curation as part of a membership program.

In addition to film itself, community involvement is a huge part of Row House's mission. At one point, an enthusiastic couple went to see *The Princess Bride* and walked into the theater wearing full costumes. Mendelssohn's response? Free tickets! The discount for costumes is now a fixture of their ticketing. By listening and responding to their audiences, Row House is becoming a familiar and friendly face in the Lawrenceville community. With this community backing, the small cinema is beginning to establish their own rules for what a theater can be.

One of Mendelssohn's crusades draws inspiration from *The Rocky Horror Picture Show's* intense cult-following. He mentions that he always wished there were a similar tradition among fans of a better quality film. So, he began "Coconut Night" by offering patrons a reduced price to see

The promenade of Row House, hidden away yet inviting.

Monty Python and the Holy Grail so long as they bring a pair of coconuts. The Row House crew was amazed by the response (and amused by the theater full of coconuts) and decided to make the night a quarterly tradition.

Patrons are also encouraged to engage with cinema, and the community, at a variety of events including a costume contest for the aforementioned *Labyrinth*. They enjoy partnering with small business and cultural organizations to bring interesting food, music, or speakers relevant to the theme of the week. Sprinkled throughout each week are specialty screenings for children/families, beer tastings with their neighbors, Atlas Brew Works, Q&A's with the directors or producers, karaoke nights, and RiffTrax commentary. This last idea is one that Mendelssohn is a huge fan of. The idea came from wanting to host a "Vampire Week" featuring *What We Do In The Shadows* and *The Lost Boys*. At the same time, the crew didn't want to snub one of the more publicized vampire movies of late, *Twilight*. Due to Mendelssohn's inability to screen this film straight "on principle," RiffTrax's snarky commentary, cre-

ated by the comedians of *Mystery Science Theater 3000*, was added to Row House's diverse offerings. They plan to use this commentary again on the upcoming Row House screenings.

As the popularity of streaming services has grown, the way we view movies is evolving. The classic linear timeline of film releases from post-production to home entertainment no longer has to include going to the theater. There are new films and series made exclusively for streaming providers where TV networks and theaters are not involved at all. It raises the questions: Why go to the movies? What's the point? Lawrenceville's answer is Row House Cinema.

In short, Row House is more than just a theater. It's a place that fulfills the social aspect of film that everyone seeks, whether they be film buffs or casual moviegoers.

Lindsey McClary | Staffwriter



Lindsey McClary | Staffwriter

Noodlehead: gourmet food experience at college student prices

My first encounter with Noodlehead was on a bitterly cold evening, and I was exhausted from a ridiculously long day of classes. I had half a mind to go home, but had promised a friend dinner and we soon found ourselves lost in Shadyside, with a glitchy Google Maps as our guide. On the verge of freezing, we asked around for directions, and were fortunate enough to end our half-hour trek with the warm glow that Noodlehead shed onto the dark, cold pavement outside.

We were welcomed in with smiles and seated at a table with a chair on one end, and a portion of a cushioned booth that lined the wall on the other. The room was lit up with a mellow buttery light that ebbed and flowed with the rustic decor, but was dark enough not to strain the eyes that were feasting on their simple single-sheet-of-paper menus.

As a seasoned Thai food consumer, with a father who spent almost a decade living in Bangkok, I was immediately suspicious of a majority of the menu items before me. Most of the menu was Asian fusion, laden with hearty meat dishes and their tofu-substituted counterparts. As many Thai food lovers would do, I decided to test the grounds with a classic: Pad Thai. For appetizers, we ordered the Thai fried chicken and the pork belly steamed buns — a spin on the delicious, classic pork bao.

While we waited, indie music lulled in the background while the place began to fill up with the approaching dinner hour. Beach House's "Apple Orchard" queued in as we encountered the thai fried chicken. I was pleasantly



Abhinav Gautam | Contributng Editor

surprised by the larger-than-expected portion sizes, and the lightly seasoned crunch that the chicken carried with it from the kitchen. The dish was accompanied with a flavorful dipping sauce, and was in itself quite filling. The real heroes of the night, however, were those pork belly steamed buns. They were delicately flavored to create a fusion of savory and sweet, which was well contained within the lightly baked buns the meat was folded into. We split the four that came on the plate, two each, and were both craving more long after our last bite.

As for the Pad Thai, I was impressed. Unlike many restaurants in the area, Noodlehead kept its flavors more on the traditional side than the Americanized side. The peanuts were accents and not at all overwhelming. As is with all great Thai food, there was a beautiful edge of smoky sweetness that played about my tongue. I'm not the biggest fan of spicy food, so I went for a level of two, and was blown away with the simultaneous subtlety and necessity of the spice in the dish. I wasn't reaching for water all night, but I did feel the heat. It was well-balanced and flavorful, just as one would hope for from a two.

I have since returned to Noodlehead and ordered the Chiang Mai Curry Bowl, which was too big for me to finish in one night after stuffing my face with my beloved pork belly buns, but was the perfect dish for a cold day. It warmed me up from the inside, and the flavors were rich and the spice just as satisfying as it had been with the Pad Thai. The noodles started out on the crunchier side, but once the dish was mixed together, it was absolutely phenomenal.



Abhinav Gautam | Contributing Editor

Left: Noodlehead's ambience is colorful and vibrant without being overbearing or intimidating. **Right:** Noodlehead's famous Pad Thai.

Heads Up

They like their crispy greens: This place is CASH ONLY. As has become the norm with the artsy, urban, uber cool restaurant culture that has taken Pittsburgh by storm, Noodlehead insists on a cash-only policy, so if you do plan to eat here, be prepared. That being said, given the portion sizes, I would say that the prices are very reasonable, especially if you're planning on splitting appetizers with friends.

Meat, glorious meat: There are NOT a whole lot of vegetarian mains here, although there are tofu options for most items on the menu. If you are a strict vegetarian, I would be wary and definitely check with the waiters to see if they use any sort of meat stock in their curries and sauces that may make the tofu substitution obsolete. There are some lovely vegetarian starters, though, if you like snacking as much as I do.

Are we there yet?: Best way to get to Noodlehead by bus from main campus is to hike up to 5th and Morewood and take the 71B down to Highland Ave at Alder St. I do think uber-ing there is faster, and walking there in this weather is miserable.

Click, click: This place has a lovely website, that shares its aesthetic appeal with the restaurant itself. Check it out for timings, menu specifics, and the like. <http://noodlehead-pgh.com/>

For those stay-at-home days: Unfortunately the place does not have a telephone, so if you would like to get take out or order straight from the venue, you will need to arrive in person to place the order and take it home yourself.

Hours: Noon–10 p.m. daily, except on holidays (see website).

21+: This place is BYOB, but does charge a 50 cent per person recycling fee (which means they take care of the bottle for you, SCORE).

Rash Alert: As stated on their website, their dishes may contain nuts, shellfish, gluten, and soy products. Be sure to let the waiters know if you have any specific food allergies and they should be able to help you make a choice that will not get your immune system riled up.

Ambiance: Fabulous, very relaxed.

College student friendly?: Absolutely, I've run into many a Carnegie Mellon student at Noodlehead. One thing I do appreciate is that the restaurant is not only a hub for college students, so you get a nice mixture in seating neighbors and don't have to worry about whispering about that guy in your calculus class that keeps clicking his pen too loudly.

Overall rating: 4 stars

Apeksha Atal | Junior Staffwriter



The Big Short – good entertainment, bad storytelling

The Big Short starts to fall apart when it offers its own commentary on the crash of 2008

After seven years of bruising political debates, *The Big Short* finally managed to fit the real story of the 2008 financial crisis into a two hour window, allowing many Americans to finally understand the mechanics of the Wall Street greed that so thoroughly destroyed the economy at the end of the previous decade.

The movie does an excellent job informing the viewer on the financial crisis. The celebrity cameos that explained some of the more obscure jargon used to describe Wall Street's activities in the mid-2000s make the movie a crystal-clear and accurate portrayal of the financial crisis. However, when screenwriter Adam McKay stops drawing on the source material of Michael Lewis's book of the same title, and begins to form his political message, it almost feels as if he forgot what the movie is about. He makes a number of policy prescriptions which have very little to do with what was actually depicted and the movie ends up only muddling the conversation its source material so valiantly fought to clarify.

Most of the movie does a great job of accurately identifying some of the truly irredeemable characters in the financial crisis. An agent from the credit agency Standard and Poor's explains that they just give away unwarranted AAA ratings (the highest possible) to prevent bankers from getting their assets rated higher down the block at Moody's. These inflated ratings boosted investor confidence at a time when investors should have been getting nervous, causing the mania behind the housing bubble to spread without impedance. Steve Carell's Mark Baum sits at a table with the smarmiest individual who tells him that he is the one in charge of making sure investors are not defrauded by Merrill Lynch's investments, but he's on Merrill Lynch's payroll and has no stake in making sure the investments go well. Arrangements like this are what allowed the financial contagion to spread so quickly and virulently. Without mentioning the concept of leverage, which might have just been throwing too much jargon at viewers, there is even some discussion of how the reason the bubble burst so violently was due to how much borrowed money was used to purchase the shaky assets, getting at the heart of the problem. However, as well as McKay does stoking accurate anger, he throws it all away in the final seconds.

The scene that really made this movie leave a bitter taste in my mouth came right at the end, as Baum sits on a deck telling his coworker that Wall Street is about to be bailed out. He tells his coworker that the rest of Wall Street wasn't stupid; they just knew that if something went wrong the taxpayers would be there to foot the bill. This is a very common bit of rhetoric surrounding Wall Street, but literally seconds before this scene, we witness massive quantities of people, most of them crying, carrying their belongings in boxes. It's hard to watch as one woman drops her cardboard box and struggles to repack it among the masses of newly unemployed exiting Merrill Lynch. To make everything worse, that pseudo-consumer protection individual from earlier in the movie is there telling people

to "go straight to your transportation and do not talk to the press." Those jobless bankers were certainly a part of the mania, and they had no reason to expect a government bailout. Yes, after the fact, it's easier to realize that the total of nearly (deep breaths) eight trillion dollars spent by the Federal Reserve to bail out the banks was a little too much. The reports of bonuses being paid to remaining executives from the excess were infuriating. However, much of the TARP program that Baum was referring to — along with the rest of the expenses the government paid — were engineered buyouts that prevented the Great Recession from becoming the second Great Depression.

McKay then uses discussions of the bailout to leap into a bizarre discussion of the events that unfurled in response to the financial crisis. He starts with one of the most uncontroversial points many make about the financial crisis — a huge number of people broke the law and exactly one went to prison. I've always been disturbed by the retributive nature of this argument (full disclosure, I think we should probably rethink criminal justice entirely and abolish prisons, but that's another thing entirely), but in a world where people who commit minor, inoffensive crimes like smoking a joint see prison cells, people who commit massive scale fraud probably deserve some jail time, too. Further, McKay scathingly and correctly condemns the strain of virulent racism and elitism that followed the crisis that blames immigrants and poor people for stealing jobs and being lazy rather than the brutal mistakes of Wall Street employees. However, his message continues into an area that doesn't really make sense. His next two calls are that Congress needs to break up the big banks, and that it failed to pass meaningful Wall Street regulation.

The first claim is false. Breaking up the big banks is not good for stability. The reason that this crisis was not the end of the western economy was that Chase, Bank of America, and Wells Fargo were aided by the government in swallowing up failing banks that had so much of America's money with them. These giant banks that are able to survive losses are plenty enough to be competitive (ten major American banks is a less concentrated system than any other financial industry on Earth and also less concentrated than most other American industries), but also provide an anchor if banks begin to fail. Yes, the taxpayers could find themselves on the hook if we were about to lose Bank of America, but we were never about to lose Bank of America. When a large number of smaller banks crashed in the late 1920s, we had a much more intense economic meltdown that culminated in a nuclear attack on another country. Even if one individual bank isn't too big to fail, the industry is. However, big, resilient banks mean that the government has an avenue to stop the bleeding if the worst happens.

The second claim, that banks avoided regulation, is revisionist history. The problem in 2008 was massive overleveraging. Dodd-Frank, the 2010 banking reform bill, aimed very specifically at leveraging, including capital

requirements that made it so banks could never be in debt they couldn't get out of. Dodd-Frank made the cost of being an overleveraged threat to the economy really high, and banks are naturally downsizing without causing a sudden hiccup in the market. This is a much safer and more stable banking system than we had eight years ago. There may be crises in the future, simply because there are so many things that can go wrong and we probably don't even know what half of them are. However, overleveraging is not likely to be a problem again for a very long time.

The fact that the movie stops telling its own story and hops on with a populist agenda is not only jarring, but it's a legitimate plot hole to the point where it just ruined the movie. The link between the proposed policies and the crisis, a link that's not entirely obvious, is never explained — which is too bad, because the movie had done such an incredible job of explaining up to that point.

I'm generally a huge fan of movies that are blatant and preachy with their messages even when I don't agree, but the disparity between this movie and its stated message is so unsettling. I advise Adam McKay to watch his own film. It's honestly a great time. Just make sure you're watching the movie adaptation of Michael Lewis's book and not the Adam McKay original commentary sloppily tacked on at the end.

Zeke Rosenberg | Executive Committee Member



Courtesy of Wikimedia Commons

Adam McKay(above), screenwriter of the movie, based his script on Michael Lewis's book of the same





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Filbert Cartoons by L.A. Bonté



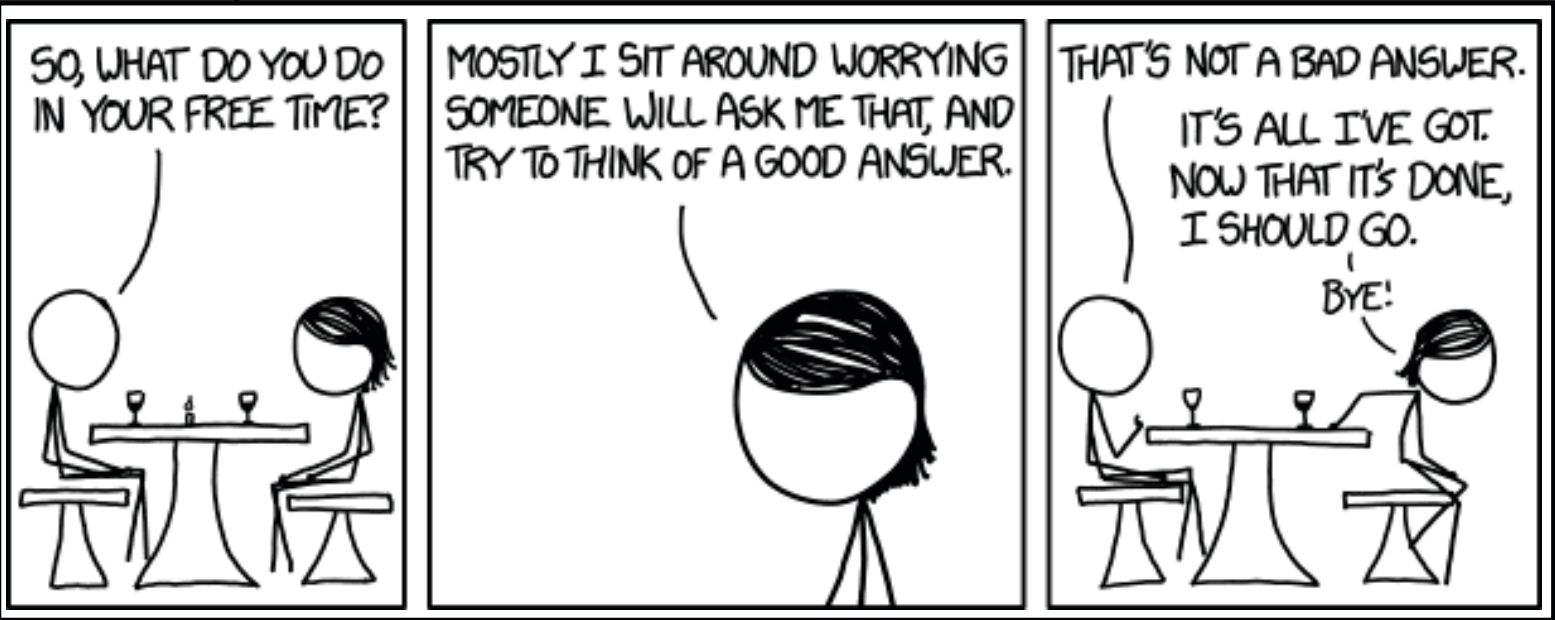
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Two Guys and Guy by Rickard Jonasson



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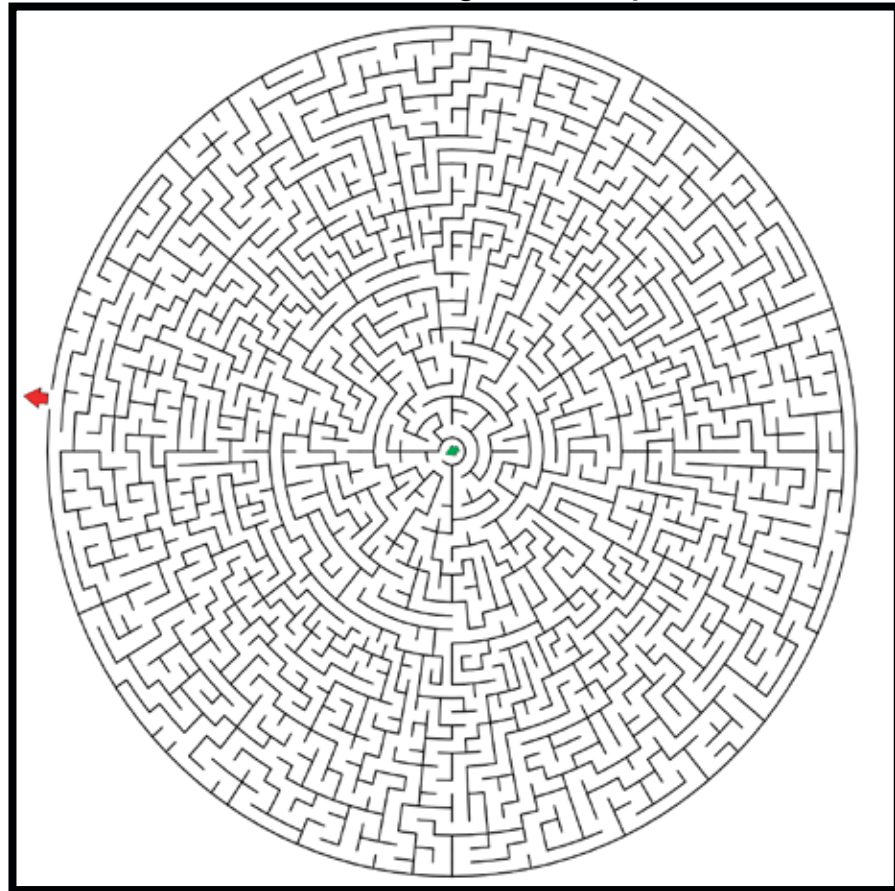
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Sudoku Puzzle: Very Hard Difficulty

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

Sudoku courtesy of www.krazydad.com

Maze: Tough Difficulty



Maze courtesy of www.krazydad.com

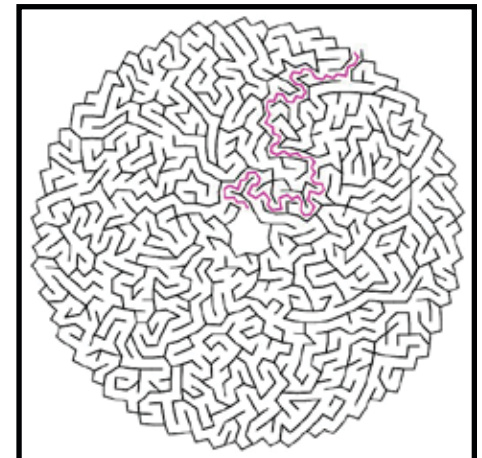
Solutions from Jan. 25

A	S	P		A	P	O	R	T		U	N	P	I	N
P	A	L		L	A	B	O	R		N	I	E	C	E
E	M	U		T	R	I	T	E		E	G	R	E	T
R	O	S	H	H	A	S	H	A	N	A	H			
Y	A	H	O						D	A	S	T	A	R
				T	U	B	A	S		B	E	C	K	E
U	P	S		G	E	C	K	O		A	R	C	O	
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H	A	I	R			E	E	R	I	E		N	O	S
U	N	L	A	S	H		R	E	S	A	W			
H	O	T	S	E	A	T				S	E	P	I	A
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D	O	O	M	S			I	D	A	H	O			A
D	R	E	A	M			N	I	T	E	R			S
T	E	R	N	S			G	N	O	M	E			E

Crossword

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

Sudoku



Maze

Horoscopes

Some tips for you to keep in mind.

aries

march 21–april 19

Be wary of arguments not worth fighting. Don't waste your time and energy.

taurus

april 20–may 20

Your life is at a stagnant point. Keep an eye out for any dips or turns.

gemini

may 21–june 21

There are clouds overhead, but stay strong. They'll disperse soon enough.

cancer

june 22–july 22

Your wits are sharp, but be careful not to harm the ones you care about.

leo

july 23–aug. 22

The path feels endless, but there's a light in your future. The darkness is fading behind you.

virgo

aug. 23–sept. 22

You've been doing very well recently. Make sure to appreciate what you have while it's still there.

libra

sept. 23–oct. 22

There are some important realizations you need to have. Then, the path will be clear.

scorpio

oct. 23–nov. 21

Times have been tough. Sometimes things must break before they are rebuilt.

sagittarius

nov. 22–dec. 21

Turn around and face your fears. Putting it off will only result in more suffering.

capricorn

dec. 22–jan. 19

Don't worry about the future. Compared to the past, things have already improved.

aquarius

jan. 20–feb. 18

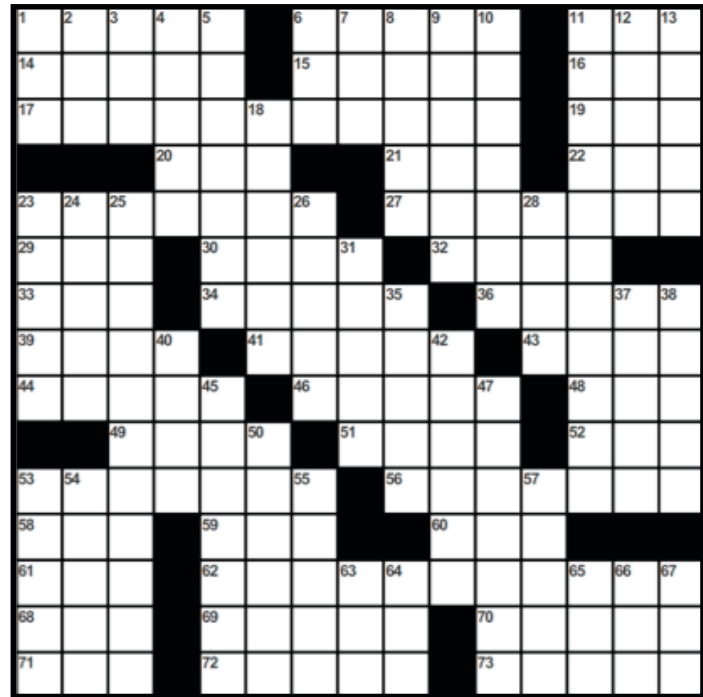
New challenges might seem daunting at first, but your hard work will pay off. Keep going!

pisces

feb. 19–march 20

Your friends appreciate your recent efforts, but make sure you don't spread yourself too thin.

Sarah Wang | Comics Editor



Crossword courtesy of FreeDailyCrosswords.com

ACROSS

- Cool in manner
- Computer-phone link
- Budgetary excess
- Drug cop, for short
- Archaic "prior"
- Nuptial agreement
- Certain news gatherers
- Fireplace toss-in
- Angry Birds, e. g.
- Brand of scouring pad
- Postgrad degree
- Locals near a campus
- Small potatoes
- Poem that extols
- Fit of agitation
- Delhi dress
- Writer's point?
- "____ mud in your eye!"
- It's tough to break one
- Burst of wind
- Takes a lease
- Celestial bear
- Glass vial (Var.)
- Brown ermine
- Death on the Nile creator?
- "As before," in footnotes
- ____ sapiens
- Have regrets
- Member of a governing body
- With bulging peepers
- Down-for-the-count count
- Historical period
- First grader's age, typically
- Verb for you
- Type of fallout
- Manly address
- Be madly in love with
- "Parliament" ending
- "For ____ a jolly good..."
- Unlikely host
- Highlander with land

DOWN

- Kitchen invader
- Washroom, casually
- "Bobby Hockey"
- Blue expanse
- Too fastidious
- Dent or scratch
- With regularity, poetically
- Performs, old-style
- Rarities for the Gold Glove winners
- Handel work (with "The")
- Place for some classic movies
- Baked brick
- Caesar's wardrobe
- Series starter
- Kingdom in the South Seas
- Hateful disgrace
- Spiders at work
- Colts' father
- German wife
- First extra inning
- Keep a low profile?
- Campaign item
- Mended temporarily
- Big brass instrument
- Filled Indian pastry
- Like some translations
- Of current interest
- El ____ (legendary city of gold)
- Store away
- Inducing the creeps
- Hazardous household gas
- Something additional
- Sore feeling
- Bard's "above"
- Midafternoon, on a sundial
- "Alternate spelling" abbr.
- Wind up



Monday 2/1

Philosophy/Center for Ethics and Policy

Colloquium: Christine Grady, National Institute of Health (NIH)

Hamburg Hall B103. 3:30 – 5:15 p.m.

Christine Grady of the NIH will be giving a talk about the importance of informed consent. The talk will focus on her research on practical vs. theoretical informed consent. She will include information on various proposed models of consent.

Center for the Arts in Society Presents: Tom Maguire on the Transformation in Northern Ireland

Porter Hall 100. 4:30 – 6 p.m.

Northern Ireland has been on a steady decline since the Belfast Agreement of 1998. Tom Maguire will be addressing these changes, why they happened, and the future effects in Northern Ireland.

Tuesday 2/2

Carnegie Mellon Chamber Series: La Belle Musique

Kresge Theater. College of Fine Arts. 7:30 p.m.

The Carnegie Mellon Chamber Series brings together Carnegie Mellon Faculty and the Pittsburgh Symphony Orchestra. The series is free, but tickets are required.

Thursday 2/4

Integrating Renewables into the Grid

Porter Hall 100. 4:30 – 6 p.m.

Ellen Williams, Director of Advanced Research Projects Agency-Energy (ARPA-E) will be giving a talk on the importance of renewables and how we can integrate them into the grid.

Intersections of Poverty: Public Health & Dr. Ding's Message

Rangos 3, Cohon Center. 5:30 – 7 p.m.

Join a discussion about the public health in Haiti.

Despite the efforts of Hospital Albert Schweitzer in Haiti, the outlook for the advancement of public health still seems grim. Come to this talk to figure out why what is currently being done is not enough.

The Power of Positive Thinking and The Sub-Conscious Mind in Healing

McConomy Auditorium, Cohon Center.

7:30 – 8:30 p.m.

Bhupendra Khatri will be giving a talk about positive thoughts and their effects on healing the mind. Khatri will also give insight into how powerful the mind-body connection is and its effect on the subconscious. Register for this event by calling 412-268-7489.

Friday 2/5

Nations Recovering from Conflict

Connan Room, Cohon Center. 4:30 – 6 p.m.

M. Bernardine Dias will lead a talk about inspiring cultural change through innovation. Campus service organizations will also be in attendance fostering conversation about social change. Light refreshments will be served.

CAUSE Conference "Perspectives on African Americans in Pittsburgh: 20 Years Later"

Giant Eagle Auditorium, Baker Hall A51. 5 p.m.

The Center for African-American Urban Studies and the Economy is hosting a conference on the perspective of African Americans in Pittsburgh. Dennis C. Dickerson will be giving a talk about African methodism and workers in western Pennsylvania.

Classifieds

Male and female English bulldogs ready to give away (free for adoption). Contact gremore34@gmail.com for more information.

Ongoing

Orchid and Tropical Bonsai Show

Phipps Conservatory and Botanical Garden.

Now – Feb. 28

9:30 a.m. – 10 p.m. on Fridays.

9:30 a.m. – 5 p.m. Saturday to Thursday.

Phipps Conservatory presents their famous Bonsai collection, with the addition of a colorful display entitled Orchid: A Flower Like No Other. Entrance into the conservatory is free with a Carnegie Mellon ID.

Maximum Minimum in Unum



The Miller Gallery. Now – Feb. 28.

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

Compiled by **Jade Crockem** | Operations Manager

Want your event here?

Email calendar@thetartan.org.



Unleash your inner child

Write for Pillbox

pillbox@thetartan.org

from the 'dream' to the cosmos.



Abhinav Gautam | Contributing Editor

"From the 'Dream' to the Cosmos" is an art show spanning all mediums and disciplines that aims to find a space for young creatives to continue to combat social inequalities. This show utilizes the idea of "futurism" to establish new lenses from which to view the intersectionality of race, class, gender, sexual orientation, religion and beyond. "From the 'Dream' to the Cosmos" runs from Jan. 29, until Feb. 7 at the Frame Gallery.

