FORUM

Carnegie Mellon's student newspaper since 1906

CMU Professor Mark Kamlet on automation's future impact

PILLBOX

EVANGELINE LIU Staffwriter

With the advent of selfdriving cars and many other kinds of artificial technology intelligence making their way into every professional field, many researchers and the public wonder about the impact these technological advancements will have on human jobs if machines can — or potentially could perform — so many of the skilled tasks that humans currently perform. Mark Kamlet, a Provost Emeritus and University Professor of Economics and Public Policy at Carnegie Mellon, is currently pursuing research on the future of automation and its impact on the economy and people's lives, along with Seth Goldstein, an Associate Professor of Computer Science at the university. In an interview with The Tartan, Kamlet discusses highlights of his research, its implications, his personal reasons for being involved, and what he wants to offer students in his seminar

class this semester. Though he has a doctorate in economics, Kamlet chooses to study automation in part because while economics can adequately

explain many phenomena, "economics has never been very good in explaining technological change." He saw a hole in the field of economics when it came to assessing and explaining the impact of technology on society. Seeing the technological focus of Carnegie Mellon, he saw the intersection of economics and technology as an area of research that suited his interests and those of the university.

Being a researcher on automation and its social impacts, Kamlet believes that much of the public discourse about the future of technology and what that would mean for jobs is too black-and-white. The public tends to talk about the percentage of jobs that will be replaced by technology, but he has a more nuanced view: just because a job isn't replaced by technology doesn't mean that it won't be impacted, either for better or for worse.

"Technological change, going way back, has always been disruptive," Kamlet asserts. He cites the industrial revolution, when steam engines appeared and took away certain jobs while creating new, different ones. He acknowledges that some people are

affected more than others, and that the unemployed cannot always be retrained for the new jobs that paid similarly to their old jobs. But eventually, after some years, society reaches a balance with the presence of the new technology, in-

cluding by creating jobs in categories no one speculating before the changes happened would have thought of.

"Twenty years ago, search engine optimization experts wasn't a job category; now it is," Kamlet states, as just one example of a recently emerged job category.

Kamlet emphasizes that the impact of technology is not clear cut: it is not either lose the job or keep the job. Rather, most jobs will be impacted because the circumstances on the job change. He gave the example of cashiers. In the years

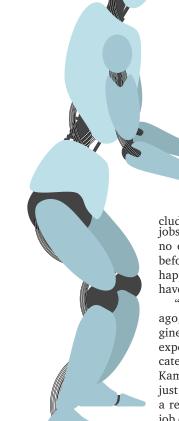
before computers, cashiers had to memorize all the prices of the items and be skilled at mental arithmetic — a far cry from the lower-skilled cashier jobs we see today. Because of the reduction in skill involved, the salaries of cashiers went down — the jobs still exist, but were sig-

nificantly affected by the advancement of technology.

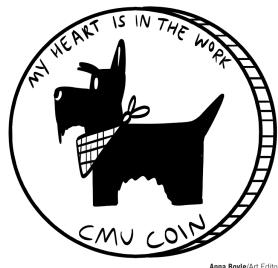
To those worried about the possible technological takeover of their paychecks, Kamlet says that there should be nothing to worry about if they are

Danny Cho/Junior Staff Artist able to acquire new skills needed later. He does acknowledge, however, that retraining cannot help everyone displaced get a new job and that not everyone is able to acquire

See AUTOMATION, A3



Case Challenge deals with CMU Coin



NORA MATTSON

News Editor

For the past few months, all eyes have been on cryptocurrency prices as crypspeculation tocurrency has entered into the mainstream. This past Saturday at the Simon Auditorium in Posner Hall, however, undergraduate students from every college at Carnegie Mellon University gathered for Undergraduate Business Case Challenge to figure out how a "CMU Coin" could change life on campus.

Colleges have been attempt to funnel student interest into expanded academic exploration of this topic, with a New York Times article this past week covering mostly graduate-level classes cropping up at Carnegie Mellon, Cornell, Duke, Massachusetts Institute of Technology, and the University of Maryland that have focused on cryptocurrency, Bitcoin, and blockchain technology.

The winning team, Team Kappa, want to use CMU Coin to more efficiently allocate resources on campus through a bidding system. They planned on using

CMU Coin as an incentive to keep students active on campus, and using the blockchain technology associated with CMU Coin to create an "immutable, transferable, and permanent storage" of student

The second place team, Team Alpha, focused more on the potential of CMU Coin as a currency. They claimed that it would speed up the verification process that Student Leadership, Involvement, and Civic Engagement (SLICE) does for purchases made by student organizations, changing what is currently a wait time of around a month to a mere eight minutes. This, they asserted, would lead to a more vibrant campus life, as organizations would plan more events and be more open to collaboration.

Both teams skewed traditional conversations cryptocurrencies about by looking for ways that a CMU Coin could be better for the environment, suggesting that mining could be more efficient and powered by sustainable

This week's challenge was a large departure from past case challenges in terms of subject.

Elaine Kim, a business major on the Kappa team, said that "other [challenges1 have been about specific companies," but she had been drawn to this one because it afforded an opportunity to "learn more cryptocurrency." about Yiyi Zan, a senior on the Alpha team majoring in Business and Statistics agreed, stating "that this was the most interesting case [she] had ever been a part of." She found that while "other cases revolved around a problem," looking for uses for a cryptocurrency on campus let her think about "solutions we can implement with this technol-

Professor Param Singh. Carnegie Bosch Chair and Associate Professor of Business Technologies at the Tepper School of Business, co-authored the case and is working on the development of CMU Coin. He is careful to highlight that the purpose of CMU Coin is not to create a cryptocurrency for the university, but rather to experiment with the mechanisms and functionalities of cryptocurrency. Singh stated, "the whole idea is not for cryptocurrency," but to work with the computer scientists and economists at Carnegie Mellon to understand cryptocurrencies. "With all these cryptocurrencies out there, we realized we don't know a lot about cryptocurrency," he said.

This case was meant to collect student ideas about the potential for this currency. Singh states that CMU Coin will be a "student driven project" and that students will be able to "build their own changes." He hopes that CMU Coin will "demystify [cryptocurrency] students."

Singh finds that all cryptocurrencies have certain characteristics in common: 'proof of work,' the method where participants solve problems to 'mine' coins, anonymity, decentralization. hopes that CMU Coin will shift these expectations by being more centralized and easy to regulate, in ad-

dition to being greener. This anonymity and lack of regulation and centralization is what many have lauded about current cryptocurries but these changes to the typical type of cryptocurrency, CMU Coin developers hope, will allow them to combat speculation and stabilize prices, as well as model a future where cryptocur-

rencies may be regulated. When asked how the recent hype surrounding the price of cryptocurrencies has effected this project, Singh replied that the CMU Coin project is not based upon the hysteria surrounding cryptocurrencies but rather the potential of

the technology. 'Cryptocurrency going to be the future," Singh stated before going on to detail how various economies are looking to integrate cryptocurrencies. "A pound might be a cryptopound, a dollar might be a cryptodollar." He has found that the recent focus on cryptocurrencies "has raised interest, and we need to understand it more."

This Undergraduate Business Case Challenge, sponsered by the PNC Center for Financial Services Innovation, gave students a chance to think about how this attempt to understand cryptocurrency might be able to effect the lives of all students.

AB brings Neistat in for Geek Week

ADAM TUNNARD Staffwriter

This past Friday saw the conclusion of "Geek Week," an Activities Boardorganized celebration of geek culture meant to "let your inner-nerd shine." Kicking off the week of events was a Monday lecture in the Cohon Center by renowned YouTube creator Casey Neistat.

Casey Neistat is a figure who has seen massive success in a few spheres: as a filmmaker, commercial advertiser, technology start-up entrepreneur, and YouTube vlog mogul — the latter being the field where he has gained the most recognition.

His career has taken a series of fascinating turns, which has led to a unique life story that many have found inspiring. He traveled from his home of New York City to talk at Carnegie Mellon about this uncommon lifestyle and the tumultuous path he took to get to where he is today.

Neistat showed up a few minutes late to a crowded McConomy Auditorium due to two plane cancellations, but wasted no time getting into some dense life lessons. The goal of his lectures, he said, is to "walk you through my life in a way that doesn't work with videos." Though his videos offer interesting perspectives on his life, his lecture was a more all-encompassing and reflective look at his experiences.

He started from the very beginning, saying, "My whole childhood was about fighting to be heard." He explained that after getting his high school girlfriend pregnant and living in a trailer home, he

was desperate to get people to hear his "loser" perspective. While working for minuscule wages as a dishwasher, he discovered that filmmaking was the perfect means to do so.

After being dumped by his girlfriend, he, as a single father, maxed out his credit card to buy a Macbook to make videos, and moved to New York City. He worked odd jobs and made videos for art collectors, successfully gaining enough credibility to earn a decent living. This credibility led to him making a video about New York's over-ticketing of bicvclists titled "Bike Lanes." Posted on what at the time was a relatively new format, YouTube, Neistat's channel exploded.

The success of "Bike Lanes" led to an HBO show with his brother titled The Neistat Brothers. He is most notable for his daily vlog, which was a challenge to himself to "make a movie every day." His vlog skyrocketed his popularity and gave him a steady fan base. Meanwhile, he started a technology company Beme, which sold to CNN for \$25 million in 2016.

The lecture covered this miraculous path to success, but was also rich with advice to the mostlystudent audience. One of the biggest things Neistat wanted to stress was the notion that "no one knows anything," that the tempestuousness of life could not be predicted by anything or anyone.

His talk focused mostly on telling his life story as a means of inspiring others to realize their dreams, and to figure out what those may be, though he himself conceded to sounding a little cliche.

See NEISTAT, A3

FEATURE PHOTO

Encompass Fair attracts a crowd



Sean McGowen/Staff Photographer

Campus Crime & Incident Reports

Alcohol Amnesty

Feb. 4, 2018

University Police responded to reports of an intoxicated female at Sigma Alpha Epsilon. A Carnegie Mellon University student was provided with medical attention and no citations were issued due to alcohol amnesty.

Odor of Marijuana

Feb. 4, 2018

An odor of marijuana was reported at Webster Hall. University police seized drug paraphernalia and found several intoxicated people on the scene. An investigation is ongoing.

Medical Intoxication

Feb. 4, 2018

A Carnegie Mellon University student was found on Morewood Avenue intoxicated but was over the legal drinking age of 21. The student was provided with medical attention.

Theft of Wallet

Feb. 4, 2018

A student alerted University Police that her wallet was unlawfully removed from Alpha Sigma Phi. An investigation is ongoing.

Access Device Fraud

Feb. 4, 2018

A student reported to University Police that her ID was used to make several fraudulent transactions at the Underground. An investigation is ongoing.

Traffic Stop

Feb. 4, 2018

University Police conducted a traffic stop of a vehicle on Craig Street for a red light violation. University Police seized marijuana from the vehicle and the driver was issued several citations.

Access Device Fraud

Feb. 5, 2018

A Carnegie Mellon University student reported to University Police that her ID was used to make several fraudulent transactions at various on campus and off campus locations. An investigation is ongoing.

Theft of Laptop

Feb. 8, 2018

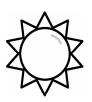
A faculty member alerted University Police that his laptop was unlawfully removed from the Purnell Center. An investigation is ongoing.

> Compiled by NORA MATTSON

Students flocked to the Encompass Career Fair at the Weigand Gym in the Cohon Center to meet and learn about potential employers.

WEATHER

MONDAY



35° / 15°



THURSDAY

TUESDAY



44° / 38°



Source: www.weather.com



WEDNESDAY

54° / 50°

SUNDAY



Corrections & Clarifications

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



Summer Employment at Carnegie Mellon: Teaching Assistant and Residential Counselor Jobs in the Pennsylvania Governor's School for the Sciences

FRIDAY

Undergraduate summer employment at Carnegie Mellon University is available with the Pennsylvania Governor's School for the Sciences (PGSS). The PGSS is a five-week summer school for extremely talented high school students from Pennsylvania. Teaching Assistant/Counselor appointments are available in the areas of biology, chemistry, computer science, physics and mathematics. In addition, one or two positions may be available as Co-Directors of Residential Life. Academic duties of the TA/Counselor include assisting with lecture and lab courses and mentoring team research projects. Counselor duties of the TA/Counselor include living in the same dormitory as the PGSS students, ensuring that students adhere to the PGSS disciplinary rules, providing tutorial help in the academic program, and arranging and conducting social activities. Co-Directors of Residential Life (a.k.a. Head Counselors) are responsible for overseeing the TA/Counselors and fostering a safe, collaborative living and learning environment for the

TA/Counselor applicants should have finished their sophomore year by the start of the summer program. Consideration will also be given to extraordinarily qualified first-year applicants. Preference will be given to applicants with strong academic records and strong social skills. Prior experience with PGSS or a similar summer program is preferred, but not required. Applicants for Co-Director of Residential Life should have graduated from college or university by the start of the summer program. Further information is available at the PGSS web site: http://sciences.pa-gov-schools.org/.

Stipend for five-and-one-half week period: \$2,500 for new TA/Counselors, \$2,750 for returning TA/Counselors \$3,000 for Co-Director of Residential Life Housing is included (in the PGSS dorm) as well as a food allowance. Duties begin Wednesday, June 27, 2018, end Sunday, August 5, 2018. Applications are available from the PGSS Office in DH A301 or may be downloaded (pdf format) from the PGSS web site: http://sciences.pa-gov-schools.org/ Contact the PGSS Program Office at (412) 268-6669 or e-mail pgss@cmu.edu

Application Deadline: March 31, 2018 (Applications may be accepted after the deadline until all positions are filled.) Upcoming Events on Free Speech

Book Reading and Lunch Discussion

#Republic: Divided Democracy in the Age of Social Media by Cass Sunstein

Friday, March 2nd, noon – 1pm

Cohon University Center, Danforth Conference Room

The session will be guided by Robert Cavalier (Teaching Professor Emeritus, Department of Philosophy) and Kathleen Carley (Professor, Institute for Software Research).

Campus Deliberative Forum: Free Speech, Inclusion & Campus **Policy**

Saturday, March 3rd, 11:30 a.m. - 2 p.m. (lunch provided) Cohon University Center, Rangos 1 & 2

This campus conversation aligns with the MLK book reading and discussion of #Republic where Sunstein writes, "a stress on democratic deliberation is likely to fit, far better than any alternative, with the most reasonable judgments about particular free speech problems."

Sponsored by the Center for Student Diversity & Inclusion and the Program for Deliberative Democracy

Casey Neistat talk details life story

NEISTAT, from A1

The crowd was teeming with fans and admirers, and with such exuberance in the room, the questions were varied and interesting.

Neistat was able to elaborate further on how having children and a family has motivated him, how he deals with stress, and what his future plans look like. Activities Board members had to cut him off from answering more questions, and afterward, he hung around to chat with students and take photos.

lecture This organized by the Activities Board as a part of Geek Week, an annual observance to "celebrate being the geeks that we are." Other activities included Harry Potter Trivia, laser tag, and showings of Thor: Ragnarok.

The Activities Board strives to "represent a variety of topics and genres" with "all of the committees work[ing] together to present a broad range of events to meet the needs of the campus community."

Though Geek Week was catered towards proud campus "geeks," the Activities Board continues to organize events for all, from comedy shows, to concerts, to lectures. If Geek Week wasn't your cup of tea, keep an eye out for the next Activities Board event. You might not want to miss it.



YouTube creator Casey Niestat speaking at South by Southwest.

Kamlet talks automation's effect on jobs

AUTOMATION, from A1

a skill set suitable to the new economic scene. Instead, he believes that this is where government policies should step in, citing the example of coal miners who have been without jobs.

"It's not [the coal miners'] fault that coal can now be done with. . .more equipment, that natural gas has come into being, that solar and wind [are making advancements], and that we now know that coal leads to climate problems," Kamlet explains. He is adamant that government policies

need to recognize this, rather then blame their challenges on a lack of diligence on the displaced workers' part.

Kamlet disagrees with President Trump on the solution to the coal miners' plight — he makes it clear that it is not to ignore climate change and revive the old coal industry, as the President has stated. Rather, it is to have public policies that, as he put it, "as we create great wealth as a country...make sure that everybody gets at least an adequate piece of the pie."

Kamlet details several policies that could be in

place to ease the transition for workers displaced or otherwise affected by technology. These include a robust tax system that raises the standard of living for everyone, the earned income tax credit, an adequate minimum wage, universal basic income, and wage insur-

Kamlet wants the younger generation to understand that despite the emphasis on Science, Technology, Engineering, and Mathematics (STEM), the future will require much more than just STEM skills — skills in social and emotional inter-

actions will likely become more and more important in the future, as laid out in his New American Dream. This book proposes ideas such as paying people for "tasks of love" - taking care of those in need, according to a university press release.

This semester, Kamlet is co-teaching a seminar class on inequality, which he hopes will give students a chance to discuss important issues, expose them to the humanities departments, allow them to have small-group discussions, and help them get to know Carnegie Mellon faculty.

STUDENT GOVERNMENT COLUMN

PRATHAM GUPTA

Special to The Tartan

The Carnegie Mellon Undergraduate Student Senate is hosting Spring Senate Week from Feb. 12 to Feb. 16. This semester, the theme for Senate Week is "Reflections," one that we believe will augment student life, culture, and growth here at Carnegie Mellon. This is a week not only to reflect upon our experiences as students from a plethora of socioeconomic backgrounds, but also to self-examine the entire student experience at Carnegie Mellon, from housing to dining to extracurriculars to different organizations — each

and every single student can make a difference if they choose to do so.

Every single day of Senate Week has a different focus - on Monday, students can chat with Senators about current undergoing initiatives and can give feedback regarding the aforementioned. On Tuesday, feel free to visit the Center for Diversity and Inclusion to participate in panels and discussion with Advocacy about how we can start making an impact on student lives concerning social issues. On Wednesday, the Campus Life and Finance committees are spearheading an organization spotlight to allow students to explore the various aspects of student life on campus. Or just come visit the Senate Table for the food!

The Business Affairs Committee is hosting an open forum this Thursday from 6 p.m. to 9 p.m. in the Dowd Room in the Cohon Center. This is a great opportunity for students to convey their thoughts regarding a multitude of issues to their representatives — from Dining Services to how an internship is structured in conjunction with a student's academics. The Academic Affairs Committee is also hosting an Open Forum this Friday in Doherty Hall 1212 from 5 p.m. to 7 p.m. Here, students can chat with senators concerning issues such as the new course policies or ensuring a better, smoother, and more informed course registration process. Don't forget all the free swag you can get at our events and don't forget to look for the Senate table in the Cohon Center or on the Cut this week

In addition, this semester, the Student Senate is proud to announce that with over 40 representatives in Senate, this is undoubtedly the most diversified Senate in many semesters and we encourage even more students to participate and express their thoughts and ideas to help improve any and every aspect of life here at Carnegie Mellon.

Measles case is no cause for alarm if properly vaccinated

ADAM TUNNARD Staffwriter

Feb. 9 marked a very surprising day for many Carnegie Mellon students and faculty, as an email was sent by University Health Services confirming that a graduate student was found to have measles, a highly contagious viral infection that is usually preventable by vaccination.

That being said, the student was fully vaccinated, in accordance with Carnegie Mellon University's vaccination policy. This is an extraordinarily rare thing, as "two doses of [Measles, Mumps, and Rubella] vaccine are about 97 percent effective at preventing measles; one dose is about 93 percent

effective," according to the Center for Disease Control and Prevention.

The student was active at the "Carnegie Mellon University campus between Wednesday, Jan. 17 and Thursday, Jan. 25" and on "Port Authority buses 61A, 61B, 61C or 61D several times during that period, but precisely which bus route or time of day is not known," according to an email sent out to students by Executive Director of University Health Services Beth Kotarski. If you were in these places, as many students were, you might not need to be as fearful as you might think.

Measles is a highly contagious infection, but with proper vaccinations, it is fornia, a hotspot of the anti-

extremely unlikely to contract the virus. Symptoms include a high fever followed by a runny nose, cough, and red eyes, usually in addition to a raised, red rash. Unfortunately for our anonymous Carnegie Mellon graduate student, they were part of the small percent of vaccinated individuals who still risk being susceptible to the virus.

Most cases and outbreaks of measles take place in areas where vaccination is uncommon. In 2014, a largely unvaccinated Amish community was shook with 383 cases, one of the largest outbreaks in the United States since vaccination was introduced. Another notable case was in 2015, when Cali-

vaccination campaign, and its surrounding states saw an outbreak that began with a traveler from abroad visiting a popular amusement park.

Though most serious outbreaks affect unvaccinated groups, it is not unprecedented to see vaccinated people contract the virus. In 2014, an article in Science Magazine made headlines as it confirmed the first time a vaccinated individual had contracted measles. The article also discussed the potenthe longevity scientists once expected.

Here at Carnegie Mellon University, we are certainly seeing something rare, but not something to fear or something unprecedented.

Most cases come from out of the country and spread among unvaccinated people. The likelihood of the graduate student case here on campus was around three percent if they were properly vaccinated. The likelihood of someone else, properly vaccinated, of contracting it from them is far smaller.

The email concluded that they were writing to us "out of an abundance of caution," and that those who actually are at risk are "Anyone born ceived two doses of effective measles vaccine known as MMR, which would include infants too young to have been immunized" and "persons who were vaccinated with an inactivated vaccine,

which was used from 1963 through 1967, and have not been re-vaccinated; and those who refused vaccination." This is, of course, a likely very small percentage of campus. Despite the statistical un-

likelihood of any other cases affecting the Carnegie Mellon campus and community, if you develop any of the aforementioned symptoms, call 412-268-2157 during the day or 1-844-881-7176 after hours, before visiting University Health Services. Students are in good hands as Carnegie Mellon University, in conjunction with the Allegheny County Health Department, make it clear that they are taking the matter very seriously.

Tepper School of Business Undergraduate Programs Dean's List, Fall 2017

BUSINESS ADMINISTRATION

Class of 2018

Raja Amara, Kimi Ampolu, Neal Baranosky, Emma Beisner, Anthony Bello, Amy Cai, Anushka Chaughule, Zachary Chen, Amy Chen, Sophia Cheng, Tommy Cheng, Cheuk Yin Cheung, Thomas Cook, Eric Coolbaugh, Akshay Daiee, Roma Desai, Amy Fan, Philip Forte, Megan Fu, Alexandra Furlo, Stanley Golcer, Himanshu Gopal, Gaurav Gupte, Rihan Hai, Andrew He, Sarah Ho, Carlos Hurtado Portela, Bryan Jangro, Vikramaditya Kanodia, Nikita Kapoor, Kyu Won Kim, Sun Kim, Scarlett Kim, Sameer Kolluri, Vishal Konchada, Christine Kwon, Benjamin Latz, Dong Hyun Lee, Jason Liao, Ryan Lilliock, Thomas Partlo, Benjamin Posin, Zeeshan Rizvi, Owen Rozinsky, Habiba Shalaby, Mason Shi, Neel Sibal, Woojin Song, Roshan Sriram, Neha Srivastava, Katherine Strycharz, Stephanie Truong, Hillary Wai Yi Tse, Tabish Valliani, Michael Varadi, Ashley Wang, Jinyuan Wang, Nina Wu, Zeheng Xu, Alecsander Yacavone, Alexander Yu, Gavin Yuen, Kimberly Zhang, Jenny Zhang, Hanyuan Zhu

Class of 2019

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Maximilian Jessen, Young Min Jin, Simran Jobanputra, Carly Jordan, Wilson Judy, Minji Kim, Kwun Ip Patrick Lee, Sarocha Leelamanthep, Daniel Levine, John Li, Izabela Litwin, Jesse Lu, Roman Makarov, Anuja Menon, Allison Mui, Anthony Neves, Sudeep Raj, Alyssa Rodriguez, Arturo Rodriguez-Reyes, Megan Seiler, Shahnoor Semy, Zachary Sikov, Jacqueline Singer, Pauline Ting, Eileen Walstad, Elisa Wang, Catherine Xu, Grant Xu, Dennis Yang, Kai-Yin Yang, Cade Zawacki, Yijia Zhang, Quinn Zsido

Class of 2020

Anamika Agarwal, Anant Agrawal, Rahul Ahuja, Kaimeng Cao, Yan Sheng Cao, Dean Dijour, Ryanne Ege, Makayla Filiere, Benjamin Gonda, William Gradisek, Yutao Gu, Sanchi Gupta, Brandon Huang, Aaron Lam, Minji Lee, Joseph Levy, Daniel Lin, Ivori Liu, Kevin Liu, Michael Lohmeier, Tiffany Lu, Xiang Luo, Parker Mellott, Sana Miyauchi, Shi Ouyang, Nicolas Poveda, Anthony Su, Samantha Trapani, Regina Wai Sung Tse, Christopher Tywanick, Sunny Ughareja, Preston Vander Vos, Isabella Velasco, Liam Walsh, Xinci Weng, Qian Weng, Lauren Wholey, Siwei Xie, Zefeng Zhang, Yu Jun Zheng,

Eshita Banerjee, Adam Behnke, Jaya Bhatia, Harry Caffrey Maffei, Lavanya Chawla,

Tracy Chen, Tanshi Chen, Ka Chun Cheung, Shivam Desai, Evan Feder, Jocelyn Gao, Kamyar Ghiam, Vinay Gonugondla, Sonali Gupta, Alexandra Iordache, Punya Jain, Eric Jiang, Andrew Joyner, Anmol Kapoor, Min Ji Kim Kim, Tak-Ho Lee, Madeline Leppla, Zhehui Lin, Katherine Liu, Wey Hsuan Low, Samarth Malhotra, Jonathan Malka, Jon Murphy, Ryan Nishida, Shiwani Pathak, Vasily Potanin, Jinghuang Qin, Meixuan Qu, Raahil Narayan Reddy, Alejandro Rocha, Gabriel Rodan, Sakshi Roongta, Malina Rufo, Lily Shan, Charlotte Simpson, Myat Sint, Jesse Song, Amolika Srivastava, Kollatat Thanajaro, John Tjards, Ashwath Vijayakumar, Jiayi Wang, Sara Wong, Lijing Yao, Mae Yeakel, David Yuan, Wanting Zhang, Connie Zhong, Zesen Zhou, Wenyi Zhu, Elizabeth Zu

ECONOMICS

Andrew Afable, Harit Agrawala, Luis Arreaga, Andrew Bryan, Ji Eun Cha, Aditya Dave, Adrian Del Bosque, Aisha Han, Mingwei Huang, Youhyun Jang, Yong Hwan Kim, Ruoshu Liu, Manvendu Navjeevan, Joseph Pickens, Benjamin Pierce, Joshua Ragen, Maxim Sak, Mrinalini Samanta, Aileen Tan, Isabelle Tseng, Alexandra Ulven, Suren Wanasundera, Shenhao Wang, Nathan Yoon, Boyan Zhang, Yan Zhao, Winston Zhou

Class of 2019

Samuel Bolig, Allysa Dong, Zeyan Du, Wenyi Fei, Amelia Gilson, Tanay Godara, Brandon Hao, Seth Henry, David Hua, Eric Huang, Rahul Iyer, Hanyu Jiang, Long Jiang, Terry Kim, Zichen Liu, Hannah Osinowo, Jae Ho Rhee, Zachary Roop, Jules Ross, Qian Sha, William Shancey, Jia Shi, Minjung Suh, Andrew Wissinger, Gordon Wissinger, Jordan Wong, Chong Xu, Shenheng Xu, Megan Yelsangikar, Lisha Yin

Class of 2020

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Forum

FROM THE EDITORIAL BOARD

Truth behind Lady Doritos and gendered products

Doritos has chips for everyone. If you like to stick to the classics, you can kick back with some nacho cheese Doritos. If you're craving something spicy, you can treat yourself to sweet chili heat Doritos. And if you're a woman, you might have your own Doritos sometime soon!

The internet has recently latched onto the idea that Doritos will be coming out with a line tailored for women. According to The New York Times, the rumor traces back to an interview with Indra Nooyi, the CEO of Dorito's parent company PepsiCo. During an interview on the "Freaknomics Radio" podcast, she said that women ate Doritos differently from men — apparently, they "don't like to crunch too loudly in public, and they don't lick their fingers generously, and they don't like to pour the little broken pieces and the flavor into their mouth."

After prompting from the interviewer, she continued, "It's not a male and female thing as much as, 'Are there snacks for women that can be designed and packaged differently?' And yes, we are looking at it, and we're getting ready to launch a bunch of them soon." She

completed the train of thought by posing the question, "And how can you put [the bag of Doritos] in a purse? Because women love to carry a snack in their purse." Days after the

podcast aired, The Sun published an article under the head-"Doriline firm tos to launch crisps for WOMEN because t h e y don't like crunching loudly or licking their fingers, boss reveals." In less than a week, a few casual comments became purported fact, and the media frenzy began.

People flocked to Twitter to express their amusement, outrage, and amused outrage. Several women expressed how much they loved licking that sweet, sweet Dorito dust off their fin-

gers. Others lamented how they want equal pay, but society gives them "Lady Doritos" instead. Eventually, the official Doritos Twitter was forced to make a statement: "We already have Doritos for women they're called Doritos, and they're loved by millions."

So no, you won't be seeing "Lady Doritos" in stores anytime soon. But it's not surprising that so many people believed they

might, since there are already hundreds of unnecessarily gendered products lining shelves all over the world. Some highlights include Bic's Pens For Her, Q-tips: Men's Ultimate Multi-Tool, Woman in Charge Earbuds, Dude Wipes, Girly Girl Binoculars, and Man Grenade Bath Blasters.

Even if the packaging doesn't explicitly say "For Men" or "For Women," a product can still be gendered. Companies convey gender with colors, shapes, patterns, images, and more. Products made for girls use the color pink, round edges, circles, light lines, and floral patterns. On the other hand, products for guys use dark, intense colors. They tend toward square edges and thick lines. Oftentimes, a shopper can determine the targeted gender with a single glance at a product.

As marketing becomes gendered, the products themselves become specific to a gender. Princess dolls and kitchen sets are almost always targeted at girls, while racecars and action figures belong to boys. Although never stated outright, the message is clear. Girls are expected to be dainty, passive, and pretty. Boys are expected

girls, they can sell more versions of the same product. For example, if a company's building blocks were plain colors, Timmy and Tina could play with them together, which means their parents would only have to buy one set. On the other hand, if one set was pink and the other was camouflage, the parents are more likely to buy two sets, one for each of their children.

Furthermore, gendered marketing allows companies to tack on a "sexist surcharge." Women often have to pay more than men for the same basic products. For certain products, especially hygiene products, the difference can be as high as fifty percent. Customers are so hardwired to go to their gender's section of the store that they never thought to check the prices on the other side.

Of course, gendered marketing can also backfire. If a company markets their product too aggressively towards one gender, then "gender contamination" can occur. According to Forbes, this phenomenon is when a gender avoids buying a certain product because of its association with the other gender. For example, men refused to drink Diet Coke because they associated the drink with women. It wasn't until Coke came

out with the "more masculine" Coke Zero that they were able to entice men toward the zero calorie drink.

With increasing scrutiny of "gender contamination," and the rise of gender equality, people have started to protest the gender segregation in stores, occasionally threatening to boycott if the store does not remove the gen-

dered labels. In more ways than one, segmarket mentation is becoming less profitable. Where the mon-

ey goes, the companies follow. In the near future, we will likely see companies abandon the practice of gendering products. Already, stores such as Target are receiving positive media attention for removing boy and girl labels on toys. But it's a slow process. There's a complex web of factors holding gendered marketing in

place — tra-

dition, capi-

talism, and of course, sexism. These forces all have a strong hold on the business world, and CEOs are unlikely to turn to social justice issues and disrupt the "way things have always been." Most of the time, companies are unwilling to change unless their customers force them to.

While a snarky tweet won't end gendered marketing, it could make it less accepted, and that's a step in the right direction.





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to be tough, aggressive, and

strong. These gender roles are

outdated and sexist. So why do

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in this economy, including the

"semmingly innocent" gender-

ing of daily products. Compa-

nies discovered that if they seg-

ment the market into boys and

One could argue that

companies still use them?

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THE TARTA

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Anti-vaxxers go viral in America during worst flu season

MADELINE KIM

Once again, the flu strikes. The Centers for Disease Control (CDC) spokeswoman Kristen Nordlund warns the U.S. that this flu season won't stop at the hundreds of deaths. "We have not hit our peak yet, unfortunately," she states. "There is still likely many more weeks to go." This marks the current flu strain as one of the deadliest in recent times.

What should be seen as a giant red flag, encouraging us to reconsider how health is handled in the U.S., is being almost de-legitimized by people who should be helping lead our nation. Gloria Copeland, televangelist and spiritual advisor for President Donald Trump, gave us the health advice of the century in a viral Facebook video:

"Jesus Himself is our flu shot. He redeemed us from the curse of the flu."

This is not the first time Copeland has spoken out about reaching out for medical help. In 2004, Copeland's message reached Bonnie Parker, who passed at the age of 59 from cancer. Parker's daughter, Kristy Beach, later found journals which recorded what her mother had

heard Copeland and her husband say on television. She came to the conclusion that "if she went to a doctor, it was a sin [because] you didn't believe enough if you did [seek medical help]."

At first glance, this statement can be dismissed as naive and affecting very few people. While I have faith that a sizeable fraction of America knows better than to take heed of this statement, devastation can occur if even one person does. People with great influence and a platform that can reach thousands of people, such as Copeland, have the capacity to take lives. In a time in which the disease is far more contagious than cancer, this mentality does not affect just those who enact her ill-formed medical advice. Even if someone decides to value the words of a primary care provider over a televangelist on television, illnesses may still come charging. However, unlike cancer, the flu is contagious. One person's diagnosis does not stop at that one person; it can multiply to a far greater population.

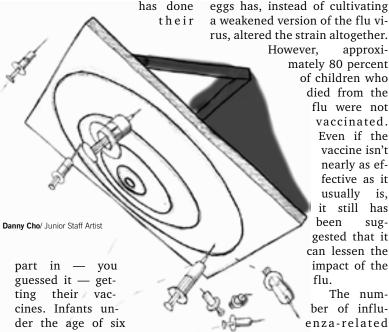
Yes, we should maintain a healthy level of skepticism when it comes to what we hear, and words from "Big Pharma" are no exception. However, skepticism should not be confused with the ruthless dismissal of anything that contradicts our paradigm. Skepticism is questioning the potential benefits of taking a new

drug that allegedly helps with psoriasis. Ruthless denial is the epitome of arrogance, believing one's quick Google search supersedes any doctor's expertise crafted after years of education and experience.

Furthermore, claiming "Jesus Himself is our flu shot" is hubris at its finest. Much like in Parker's case, Copeland's message discourages people from seeking medical help, even if the illness is treatable. Nobody wants to believe that they are doing something inadequately, and by stat-

ing that lack of faith ended a life, people like Copeland are preying on the vulnerable. These vulnerable people want to have autonomy, and Copeland is giving the false pretense by assuring one's faith or prayer alone is the cure. Whether Copeland believes in this message or not is irrelevant; her message is potentially disastrous for modern society.

Furthermore, herd immunization protects not only the vaccinated but also those who cannot be vaccinated. Vaccines don't eliminate the chance of being stricken with the respective illness, but the likelihood of an outbreak does greatly reduce if the majori- ty of the population



months are too young to be vaccinated and are already more susceptible to falling ill. Lethal egg allergies or those who have had Guillain-Barré Syndrome are both highly discouraged from getting the flu shot. If the decision to vaccinate only involved those making the choice, it wouldn't be as big of a problem. However, one's decisions can affect those all around.

The statistics for vaccines don't look promising. The effectiveness rate is as low as 17

percent, contrasting to the usual 40 to 60 percent. The traditional manufacturing of vaccines with eggs has, instead of cultivating a weakened version of the flu virus, altered the strain altogether.

approximately 80 percent of children who died from the flu were not vaccinated. Even if the vaccine isn't nearly as effective as it usually is, it still has gested that it can lessen the impact of the The num-

pediatric deaths is on the rise, and officials don't see an end to the flu epidemic coming anytime soon. Even if you, like Copeland, haven't gotten vaccinated for the flu and are safe, keep in mind that this case does not deny the damage the flu has brought this season. Your overconfidence may come at a price.

Madeline Kim (@madelink) is the Assistant Forum Editor for The

The GOP memo is nothing but partisan smoke and mirrors

Staffwriter

keeping with recent tradition, Republicans have found a new way to undermine federal institutions. This time, it comes in the form of #releasethememo. The hashtag is a semiviral attempt to stir controversy surrounding the FBI and Justice probes Department

into Russian interference in the 2016 election cycle. Namely, that con-

troversy should supposedly invalidate the Muel-

ler investigation. There are two main things to look into here: First, the memo itself, since it has been released, and second, why the individuals involved have such terrible credibility to begin with, and why that means that

the memo should be ignored. The memo alleges that the FBI ignored procedural standards and obtained and utilized British intelligence — funded by the Democratic National

Anna Boyle/ Art Edito

Committee (DNC) - while investigating former Trump campaign official Carter Page. It also alleges that the Justice Department failed to disclose that the information was funded by Democrats in obtaining a warrant. Rod Rosenstein, the Deputy Attorney General in charge of oversight of the Mueller probe, is also implicated in calling for a renewal of the surveillance warrant

So, on the surface, it does look incriminating. Presented only this evidence and no context, one might think that the FBI and Justice Department deliberately sought to surveil a Trump campaign official with the direct backing of the DNC. There

are numerous reasons this conclusion is inaccurate.

For one, as evidenced by the yet-tobe-released Democratic response

memo,

the Republican memo apparently deliberately selects this evidence while ignoring other information that would completely invalidate the aforementioned concerns. Especially when considering that Trump is now holding up the release of the Democratic memo, both memos are

clearly politically motivated. Those motivations are fairly cut-and-dry: Trump and the Republicans want to remove Mueller, and Democrats want him to carry out his investigation unimpeded. So, then, why should we not trust the Republicans in this situation?

Well, it really comes down to one person (besides President Trump): Rep. Devin Nunes (R-CA). Nunes has gained a reputation for shady hyper-partisan political actions over the years, most recently in attempting to justify Trump's ludicrous claim that President Obama wiretapped him during the 2016 campaign. Nunes released communications between Obama's former national security adviser Susan Rice and the intelligence community, in which Rice asked for records of Trump transition team officials who had connections to foreigners already being surveilled. The key word there is transition. Rice did not attempt to surveil the Trump campaign. Rather, after Trump won

the election, Rice sought to make sure transition team officials were not compromised. As we learned months later, several Trump campaign and administration officials have been charged with crimes related to Russian interference in the election. Michael Flynn, who served as Trump's national security adviser until his ousting, pleaded guilty to lying to the Mueller team about correspondences with Russian officials. Michael Flynn was Nunes' mentor. They shared a penchant for conspiracy theories under the Obama administration, and Nunes continues to do so under Trump, even with Flynn gone.

That lack of credibility surrounding Nunes, as well as the FBI and Justice Department's vocal displeasure with the release of the GOP memo, should be red flags to all Americans. The memo is just another part of a continued effort to undermine the Mueller probe and to protect Trump. This likely will not be the last Republican effort to do so.

Humanities misunderstood at CMU

MARIKA YANG

Sports Editor

What do you think of when you hear the words "Carnegie Mellon University?"

Phrases such as "tech school," "computer science," and "stress culture" come to mind, as well as "art school," "drama," and "Broadway." When I visited Carnegie Mellon as a prospective student, I sat in McConomy Auditorium packed with high schoolers and their parents who were in the process of making important life decisions. The speaker ended his introductory remarks by touting how Carnegie Mellon was both a peer of the Massachusetts Institute of Technology (MIT) and The Julliard School.

When I first told my friends and family that I would be spending the next four years of my life at Carnegie Mellon, the first words that came out of their mouths were: "You're studying computer science?" When I said no, they continued: "So engineering then?" No again. "Oh, you're doing art, right?"

Nope. I applied to the Dietrich College of Humanities and Social Sciences, undeclared and undecided about what I wanted to do with my future. After taking my required freshman courses and discovered that I love to write, I declared as a Professional Writing major in the Department of English.

As a student on campus, I have experienced different reactions to being a humanities major. I have heard people talking about how Dietrich is the underling of the

university. I've seen derogatory memes of the Facebook page, "Carnegie Mellon Memes for Spicy Teens." Even among my own friends, I have experienced "major-shaming," complaints about how I don't take midterms and finals or spend six hours on coding assignments (newsflash: I have done both).

But when I explain to my friends what being a major in the humanities is like, some begin to understand that different fields simply warrant different learning structures. Small things that I'm used to - like 60 pages of reading a night, ten-page essays, and taking small classes that require attendance — are foreign to many non-humanities students.

According to Carnegie Mellon's most recent admissions for the 2017-2018 freshman class, Dietrich is the second largest college at the university, with 303 enrollees behind the College of Engineering's 434. However, only a small percentage of students in Dietrich fall under the "humanities" half of the college: the Departments of English, History, Modern Languages, and Philosophy. Of the Fall 2017 admitted class, only 15 percent were in the humanities, while nine percent were undecided, and the remaining 74 percent were in non-humanities majors such as information systems, psychology, and statistics and data science.

Dietrich is renowned for its interdisciplinary studies, merging technology and humanities with majors like Statistics and Machine Learning (a joint major with the School of Computer Science), and the new minor Humanities Analytics from the Department of English that incorporates studies in computer science and robotics. The Department of Statistics and Data Science continues to expand, becoming one of the fastest-growing statistics programs in the country.

All these developments are great, and I'm glad that Dietrich is a space where students can combine their varying interests. However, as previously argued in The Tartan, the continuing "STEM-ification" of Dietrich, while welcome and progressive, could threaten the more traditional humanities departments of the college.

The humanities community at Carnegie Mellon is small, but it is rare to find people who are not fully passionate about what they study. There is also less of the stress culture that is ubiquitous in other fields on campus. Yes, students are overwhelmed with schoolwork, clubs, and other responsibilities like all students, but there is less competition, less of a need to brag about how little sleep you had last night, which Silicon Valley internship you got, or when the last time you left the architecture studio was.

I have highlighted many differences between the humanities and other fields at Carnegie Mellon, particularly STEM fields, but my purpose is not to define the large chasm between them. We are all students at the same university that appreciates a wide range of disciplines. But in order to create a community that appreciates one another, we must first understand the differences in that community.

LETTER TO THE EDITOR: SEXUAL ABUSE SURVIVORS

As someone who was sexually harassed in the past, I know about the inner-pain that victims and survivors experience. But, as someone who spent five years as a counselor and a therapist working in the fields of alcoholism, drug addiction, and mental health, I want to share my observations and research findings about another form of sexual abuse.

Our country needs to start having a conversation about the plight of incest victims and survivors. It is my opinion that these people suffer more deeply and profoundly than victims and survivors of other forms of abuse. Their self-hatred, selfloathing, and self-blame are so severe and extreme that some of them constantly smile even when it is not appropriate to do

Experienced counselors and therapists will tell you that they do this as a way to hide and cover up how dirty, disgusting, and miserable they feel deep within themselves. They will also tell you that very few of them ever have a healthy, "functional," and happy romantic relationship. Incest victims also suffer from very high rates of suicide, anorexia nervosa, and bulimia.

Our society needs to take the next step and try to eradicate this problem from existence.

- Stewart B. Epstein

LETTER TO THE EDITOR: STANDING UP TO ABUSERS

I believe that most of us Americans have been victims of bullying and/or some form of abuse at some time in or lives. As a former counselor and therapist, I worked with and tried to help many victims of everyday bullying, as well as various other forms of abuse.

I found that their biggest problem and issue they dealt with was that they did not stand up to their bullies and abusers. The best question that I have ever

heard a counselor or therapist ask their clients and patients relative to this was the following:

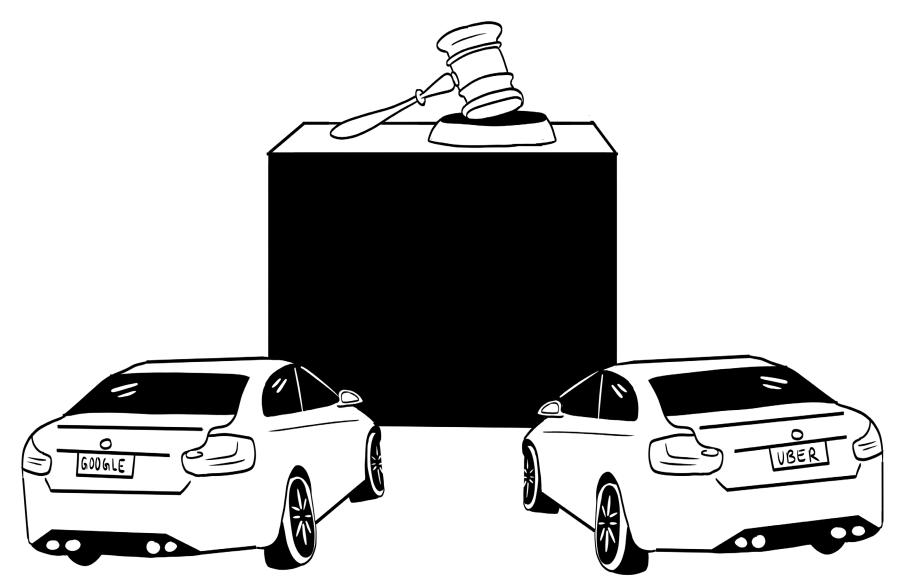
"What parts of yourself don't you love that allows you to let this bully or abuser to continue to mistreat and abuse you?"

This question prompted many people to finally make some change in their lives and to walk away from and leave their abus-

– Stewart B. Epstein

Science & Technology

Uber, Waymo settle court case for \$245M in equity



Anna Boyle/Art Edito

FATIMA AMBER AHMAD Junior Staffwriter

On Feb. 7, autonomous vehicle competitors Uber and Waymo reached a surprise settlement on their fifth day in court, over allegations that Uber had used Waymo's trade secrets in its autonomous vehicle development. Waymo, owned by Google's parent company Alphabet, was paid about \$245 million in Uber company equity.

After Waymo first filed their suit against Uber in February of 2017, some speculated that the consequences for Uber could he as dire as the end of their autonomous vehicle program or a much larger settlement than the one that closed the case. At the

center of the controversy was Anthony Levandowski, a former Google engineer and leader in autonomous vehicle research, whom Waymo accused of leaking company secrets to Uber.

Waymo alleged that, before Levandowski left the company in Jan. 2016, he had downloaded 14,000 confidential files and documents concerning the development of Waymo's selfdriving cars — specifically, the design of Light Detection And Ranging (LiDAR), the spinning cylindrical sensors on top of self-driving cars which they use to "see." LiDAR emits millions of lasers per second and measures how quickly they take to reflect off of objects in order to determine their distance from the car.

After Levandowski left the company, he started an autonomous trucking company called Otto. In Aug. 2016, Uber purchased Otto in a \$680 million deal.

Waymo contended that Uber's acquisition of Otto was just a front for Uber to use Google's research, claiming that former Uber CEO Travis Kalanick had been in talks with Levandowski while he was still working for Google.

Uber has maintained their innocence throughout the case. As current Uber CEO Dana Khosrowshahi put it in a statement released last Friday, "we do not believe that any trade secrets made their way from Waymo to Uber, nor do we believe that Uber has used any of Waymo's proprietary information in its self-driving technology. We are taking steps with Waymo to ensure our LiDAR and software represents just our good work.'

Uber had decidedly distanced themselves from Levandowski. He was not a defendant in the case, but is currently being investigated by the U.S. Department of Justice for leaking Google's trade secrets. He was demoted from being the head of the Advanced Technologies Group at Uber last April and fired last May, after failing to turn in requested court documents. Throughout the case, he repeatedly avoided answering incriminating questions by invoking his fifth amendment right.

During the testimony,

Kalanick claimed that he reminded a miffed Google CEO Larry Page that "your people are not your [intellectual property] IP," according to Gizmodo. His quip embodies two observations about this case: It was a very melodramatic ordeal for both of the Silicon Valley giants, and it may have future implications for companies who are at the frontiers of new technology.

Waymo protected their LiDAR technology using trade secrets, defined by the U.S. Patent and Trademark Office as intellectual property which can give a company a commercial edge over others. Trade secrets are protected by U.S. law, but as Wharton Management Professor John

Paul McDuffe points out, they are not typically a reliable way to secure IP. Technology is a hard secret to keep when products using it are available for public consumption. If Waymo's case can slow down Uber's autonomous vehicle development, then trade secrets may become more reliable.

Trade secrets may protect IP — but, this comes at a cost. The particulars of how autonomous vehicles work are not known to the public, and have been redacted in the court documents involved in this case. As Santa Clara Law Professor Dorothy Glancey states, making good policy about autonomous vehicles may prove to be a challenge if certain information must be hidden from the public.

SCITECH BRIEFS

superdense New wood is stronger, lighter than steel

A newly developed type of compacted wood has been proven by researchers to be incredibly dense and as strong as steel.

To create the ultracompacted material, a team of engineers, led by researchers from the University of Maryland, soaked a block of wood in a boiling solution of water, sodium hydroxide, and sodium sulfite. Then, the researchers squeezed the wood between hot metal plates, at extremely high pressure. Furthermore, the chemicals used to process the wood wouldn't pollute the environment.

Researchers determined that the ultra-compacted wood was 11.5 times stronger than natural wood, by testing how well it could withstand being stretched without breaking.

The highly compacted wood was also dense enough to stop a bullet and lighter than steel.

The lightweight wood could have many applications in manufacturing for example, to produce vehicles that are lighter, and therefore more fuelefficient.

study sleep variation

Blind Mexican cavefish sleep only one-and-a-half hours per day, on average. Researchers from Florida Atlantic University believe this is because the cavefish brain contains high amounts of a chemical called hypocretin/orexin (HCRT).

HCRT helps regulate hunger and sleep cycles. The cavefish, which have no eyes, have far higher amounts of HCRT than related fish who have eyes and live closer to the water's surface - roughly twice as much. Increasing the HCRT signaling made cavefish sleep more, but had virtually no effect on other freshwater fish.

"These findings suggest that differences in Hypocretin production may explain variation in sleep between animal species, or even between individual people," said Alex Keene, an author of the study. "It may also provide important insight into how we might build a brain that does not need to sleep."

This sudy was published in eLife by researchers from the Charles E. Schmidt College of Science at Florida Atlantic University on Feb. 6.

Chemical in cavefish SpaceX launches brains could help its Falcon Heavy rocket on Feb. 6

Private aerospace company SpaceX successfully launched its Falcon Heavy rocket for the first time on Feb. 6 from the Kennedy LC-39A SpaceX South Texas Launch Site.

Falcon The Heavy, essentially consisting of three rocket boosters strapped together, is the most powerful rocket to launch since NASA's Saturn V. SpaceX hopes that like Saturn V, which sent astronauts to the moon, the Falcon Heavy will shoot humans into space.

One of SpaceX's most important goals is to make all its rockets reusable. This means that after each launch, the rocket boosters have to return to Earth, and land safely. In last Tuesday's launch, two of the Falcon Heavy's three boosters landed successfully.

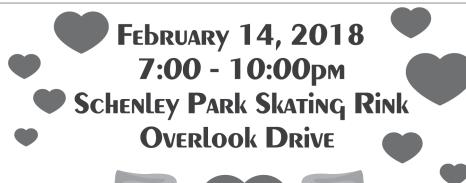
SpaceX's goal in producing reusable rockets is to significantly lower the cost of space travel. They are currently working on another rocket, the Big Falcon Rocket (BFR), that they intend to use to send humans to Mars. Source: Science News

> Compiled by **EMMA FLICKINGER**



The Falcon Heavy was launched on Feb. 6, 2018 from the Kennedy LC-39A SpaceX South Texas Launch Site. It is the highest-capacity rocket to in current operation, doubling Delta IV Heavy's payload.

Source: Science News Source: Nature





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UPMC HEALTH PLAN









Paleontoloigists discover early spiders had tails

EMMA FLICKINGER

Asssitant SciTech Editor

A previously undiscovered prehistoric arachnid has been found in the Myanmar rainforest, trapped in 100-million-year old amber. The arachnid fossil looks like a spider, but has a long tail — called a flagellum.

The arachnids date to the Cretaceous period — when Tyrannosaurus rex lived — and display a combination of prehistoric and modern characteristics. They are similiar to spiders in the sense that they have fangs and appendages to spin silk. The researchers who discovered the species named it Chimerarachne yingi, "Chimerarachne" after the mythological chimera, said to be made of parts from different animals. "We have known for a decade or so that spiders evolved from arachnids that had tails, more than 315 million years ago," said study coauthor Dr. Russell Garwood of the University of Manchester. "We've not found fossils before that showed this, and so finding this now was a huge (but really fantastic) surprise."

Four *Chimerarachne* specimens were found. They had spinnerets to make silk, like modern spiders do, but the researchers believe that it did not use them to weave webs. The function of the tail is unknown. Al-

though, according to Dr. Paul Selden — a paleontologist University of Kansas — "Any sort of flagelliform appendage tends to be like an antenna. It's for sensing the environment. Animals that have a long whippy tail tend to have it for sensory purposes."

The fossilized creatures are almost 5.5 millimeters in length and are all male.

"Chimerarachne fills the gap between Palaeozoic arachnids with tails known from rocks (uraraneids) and true spiders, and the fact the new fossils have been wonderfully preserved in Burmese amber has allowed an unmatched detail of study," said Dr Ricardo Perez-De-La Fuente, of the Oxford Museum of Natural History. "There are many surprises still waiting to be unearthed in the fossil record. Like most unexpected findings in palaeontology, it probably brings more questions than answers, but questions are what keep things exciting and push the boundaries of science," he said.

"Though it isn't probable, it's possible that some *Chimerarachne* are still alive in the rainforest today. "We haven't found them, but some of these forests aren't that well-studied, and it's only a tiny creature," Selden said

Two studies were published in Nature Ecology & Evolution on Feb. 5.



Rebecca Enright/Staff Artist



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DIETRICH COLLEGE Carnegie Mellon University Dietrich College of Humanities

Carnegie Mellon University

and Social Sciences

Dean's List Fall 2017

On behalf of the faculty and staff of the Marianna Brown Dietrich College of Humanities and Social Sciences, we congratulate the DC, SHS, and BHA undergraduates listed below for earning a place on the Fall 2017 Dietrich College Dean's List.

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* Zainab Akhtar

* Abdulaziz Al-

Haddad

* Amna Ali

* Osama Ali

Elliot Allard

Mohannadi

* Al-Dana Al-

* Amna Al-Ansari

* Noor Al-Athba Al-

* Kaltham Al-Khuzaei

* Maryam Al-Naemi

* Fatima Al-Sooj

Brandyn Amado

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Anna Anderson

Obed Appiah-

Mahima Arya

* Layan Azem

Philip Baker

Kasdan Bakos

Varun Baldwa

Mariah Barnes

Michael Becker

Muhamed Bicic

Thomas Bickel

Jacob Bittner

Karan Bokil

Nicholas Bellante

David Bloomquist

Madeleine Bomberg

Jennifer Bornemann

Alysa Bradbury

Justin Britton

George Brown

Andrew Bryan

Nicole Casey

Ryan Casey

Ji Eun Cha

Christie Chang

Monica Chang

Lawrence Chen

Wanhe Chen

Jeffrey Chiu

Kayu Choy

Allison Chu

Megan Christy

Eugene Chung

Kathy Chung

Anna Cicozi

Rose Ciriello

Aiqi Cui

Kenneth Cohen

Shane Dasbach

Jose De La Maza

* Faiq Defiandry

Zacharias Dejene

Sai Dhulipalla

Wanling Ding

Allysa Dong

Sihan Dong

Tian Dong

Cameron Dively

Walter Donnellan

Margaret Edwards

Mingjun Duan

* Aya El-Sakka

* Noor El-Sakka

Leah Ettensohn

Connor Fitzgibbon

Juliann Fields

Nupur Maheshwari

James Mahler

Zeyneb Majid

Shouvik Mani

Ariana Mapua

Zoe Marshall

Nolan Mass

Colin McNeil

Jacob Meyers

Antonia Miller

Shalaya Minor

Caleb Miller

Juan Diego Meza-

Isha Mehra

Vinasco

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* Hassan Marafih

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Howarth's 21 points lifts Tartans over Rochester

MEN'S, from A12

The Tartans improved in the second half from the first, shooting 59.4 percent from the field after shooting 33.3 percent in the first half. They ended with a 47.5 shooting percentage on the game, while Emory shot 44.6 percent. The Tartans were hurt by their turnovers, committing five more than Emory.

Against the University of Rochester Yellowjackets, the Tartans fought off a comeback by the visiting team to take the win. Though in this game the Tartans were on the defensive, it seemed like the game was going to end like

it did against Emory, with a shot in the last second taking the victory from the Tartans. On Sunday, however, the review waived a shot taken after buzzer, and the Tartans held on to win.

Howarth led the team with 19 points, followed by McNeil with 13, Ehland with 11, and Maha with 10. McNeil recorded five assists, while Maha hauled in five steals. Henry led the team in rebounds, with nine.

The Tartans opened the first half with aggressive offense, scoring the first seven points of the game. The Yellowjackets closed the half with an 8–2 run and went into halftime with the score 36–32.

For most of th

second half, the Tartans maintained their lead. The Yellowjackets regrouped to score 16 straight points, taking the lead 68–66. A McNeil layup with two minutes left ended the Yellowjackets' run and tied the game. With 1:30 left, two free throws by Howarth gave the Tartans the lead, and they held on to win 70–68.

The Tartans' 39.7 percent shooting was lower than the Yellowjackets' 48.1 percent, but made up for it by taking 16 more shots.

After the two games, the Tartans move to 6–16 on the season and 2–9 in UAA play. They will next play the University of Chicago on Friday, Feb. 16.

Women's basketball lose close game, get blown out

WOMEN'S, from A12

However, the Eagles benefited from three times as many assists, twice as many second chance points, and 17 bench points to the Tartans' six.

On Sunday afternoon, the Tartans faced off against the University of Rochester Yellowjackets at Skibo Gymnasium, falling 70–53.

Filiere led the team in points, scoring 21 points, with 11 of them coming in the fourth quarter, She also added five steals. Ochsner led the team with seven rebounds.

In the first quarter, the Yellowjackets started quickly, jumping to an 11–4 lead. The Tartans played poorly in the quarter, shooting only 23.5 percent, and trailed 20–12 going into the first break.

The Yellowjackets maintained their momentum in the second quarter, building their lead to 21 points with a 17–4 run. At the end of the quarter, a three-pointer from sophomore Megan Jaeb cut the Tartans' deficit and made the score 40–16 going into the half.

Unlike the first half, the third quarter was much more balanced, with the two teams trading baskets. However, the Tartans were not able to build enough momentum to spark a comeback run.

Trailing 56-34 at the

start of the fourth quarter, the Tartans' improved immensely on their efficiency, shooting 43.8 percent from the field. However, that was not enough to stop the fast-paced Yellowjackets offense, who held their lead to win 70–53.

The Tartan's overall shooting percentage averaged to 39.1 percent, not far off the Yellowjackets' 40.3 percent. The Yellowjackets recorded three times as many assists, twice as many second chance points, and 17 bench points to the Tartans' six.

The Tartans will travel to the University of Chicago to play the Maroons on Friday, Feb. 16 at 6 p.m.

SPORTS BRIEFS

Women's Track & Field

The Carnegie Mellon University women's track and field team entered the Dragon Grand Prix hosted by Tiffin University on Saturday, Feb. 10, for its fourth meet of the season. The Tartans won two events for the day in the unscored meet while two earned career-best marks.

Sophomore Valerie Collins won the mile race in a career-best time of 5:24.01, and junior Wade Lacey placed third in 5:30.29.

Senior Sarah Cook and junior Rose Ciriello finished 1-2 in the 800-meter run with times of 2:20.26 and 2:20.60.

First-year Isabelle Chickanosky earned second place in the 3,000-meter run after winning her heat in 10:56.76.Sophomore Leah Kendrick finished eighth in the 60-meter hurdles in 9.70.

In field events, sophomore Michelle Karabin finished sixth in the pole vault after clearing 3.40 meters. Senior Sarah Milholer also cleared 3.40 meters, a career best, and finished eighth after judge's decision.

First-year Alessandra Tully tossed the weight throw, a career-best 3.81 meters, and the shot put, 9.19 meters, to lead the Tartans in both events.

Men's Track & Field

The Carnegie Mellon University men's track and field team competed at the Tiffin University Dragon Grand Prix Invitational on Saturday. Senior Tommy Mansfield broke the school record in the pole vault after clearing a height of 4.60 meters. Mansfield's height placed him fifth at the Grand Prix

First-year Alex Liu

cleared the bar at 4.30 meters, a season-best height, to place sixth. Also in the field events, sophomore Fred Dauphin turned in two sixth place finishes in the long and triple jumps. He recorded a mark of 6.25 meters in the long jump and 13.00 meters in the triple jump. Senior Eloy Fernandez took fifth in the triple jump after leaping 13.12 meters.

Junior Isaac Mills crossed in 1:57.82 in the 800-meter run to win the event. The first-year duo of Matt Karee and Michael Cabral placed fourth and fifth in the mile run with both crossing in season-best times. Karee crossed in 4:26.46 and Cabral in 4:27.19.

In the 3,000-meter run, first-year Andrew Singh crossed in 9:07.38 to place seventh.

The Tartans will compete again on Friday, Feb. 16, at the Ohio State University Indoor Tune-Up Meet.

Women's Tennis

The Carnegie Mellon University women's tennis team, ranked 10th in Division III, faced Division I Saint Francis University on Saturday, Feb 10. The Tartans won the match, played by Division I rules, 4–3, and are now 6–1 for the season.

The Tartans earned the doubles point with a win at first doubles by sophomore Vinaya Rao and first-year Melissa Strome, 7–5, against Laura Gutierrez and Nastasia Tamarkin. The Red Flash had to default at third doubles, giving the Tartans the point.

In singles play, a default at sixth singles gave the Tartans a 2–0 lead. The Red Flash tied it at two-all with wins at first and third singles. Rao won at second singles, 7–6 (7–2), 7–5.

With the match in the balance, Strome picked up

a come back victory at fifth singles, 3–6, 6–3, 6–3, to win the match for the Tartans.

Carnegie Mellon will next play Indiana University of Pennsylvania and Seton Hill University on Sunday, Feb. 25, also at The Club Sport and Health in Monroeville, PA.

Men's Tennis

The Carnegie Mellon University men's tennis team hosted Division I Saint Francis University on Saturday, Feb. 10, defeating the Red Flash, 7–2. The Tartans are 4–1 for the year.

Junior Daniel Levine and first-year Kailas Shekar each won two matches for the Tartans while pairing up at first doubles to earn the first point of the match with a 6–4 win. After the Red Flash tied it with a win at second doubles, junior Chaz Downing and sophomore Nicholas Calzolano won 6–3

at third doubles to give the Tartans back the lead.

Levine and first-year Ray Boppana sandwiched wins in singles play with a loss for the Tartans at second singles to hold a 4–2 lead. Levine won at first singles, 7–5, 6–2, while Boppana won, 7–5, 6–1, at third singles.

Shekar earned match point at fourth singles with a 6–2, 6–2 win, his second against a Division I player in two straight matches.

Also winning for the Tartans was first-year Joshua Pinckney at sixth singles, 6–1, 6–1, and sophomore Robert Levin at fifth singles, 5–7, 6–1, 10–7.

The Tartans will next play at Youngstown State University on Friday, Feb. 16 at 7 p.m. before going to the ITA National Team Indoor Championship in St. Peter, MN on Feb. 23.

Compiled by MARIKA YANG



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Sophomore Zach Howarth led the Tartans in points against Emory and Rochester over the weekend.

MARIKA YANG Sports Editor

The Carnegie Mellon men's basketball team welcomed two of their University Athletics Association (UAA) rivals, Emory University on Friday, Feb. 9, and the University of Rochester on Sunday, Feb. 11. The Tartans played two close games, dropping the first game to the Eagles 82-80, and defeating the Yellowjackets 70-68.

On Friday against the Emory Eagles, the game was decided in the final second. Trailing by seven points late in the second half, the Tartans attempted a comeback, falling just short.

Sophomore Zach Howarth led the Tartans in scoring with 25 points. Senior Ryan Maha and sophomore Colin McNeil both scored 14 points, and

McNeil dished out a teamhigh six assists. Juniors Seth Henry and Patrick Ehland hauled in eight rebounds apiece on the night.

The Eagles opened the game hot, scoring eight straight points. Later in the half, a 17–6 run by the Eagles extended their lead to 16 points. The Tartans scored the final five points of the half, including a three-pointer by Maha, going into halftime trailing 37-29.

In the first two minutes of the second half, Howarth scored two consecutive three-pointers to pull the Tartans within five points off the lead, a taste of what was to come later in the half. Five minutes into the half, the Eagles' lead was 12 points, but over the next four and a half minutes, the Tartans slowly made their way back into

the game. A jumpshot by Howarth capped off a 13-5 run, making the score 60-56. The Eagles scored the next five points to get their comfortable lead back, but the Tartans pushed again, scoring the next eight points to bring the team within one point, 65-64 with 5:50 left to play.

With 1:39 left to play, the Eagles led by seven points, but the Tartans again rallied to score six straight points, a three-pointer by sophomore Coopers Williams bringing the score to 78-77 with 32 seconds left.

Two free throws gave the Eagles a three-point lead, but three made free throws by Maha tied the game at 80-80 with 13 seconds left in the game. A layup by the Eagles at 0.8 seconds lifted the visiting team to the win.

See MEN'S, A11

Sports Tartans split home games On becoming short-term against Emory, Rochester fans for Winter Olympics

BRAD PUSKAR Staffwriter

My parents love watching the Olympics. Doesn't matter what season it is, winter or summer. They'll watch it all, and for a while, when I was a little kid, I really didn't understand the appeal of watching a bunch of athletes that nobody had ever heard of play sports (how do you just become a ski jumper or a curler? Where do they even find people for that?)

I still watched the events with them, and, after my sister got older and was

tively, event had a reathe same

first is less about sports, and more about advertising, I guess? Look at the Super Bowl, though. The spectacle and smoke and mirrors to make everything look much more impressive than it is infiltrates every aspect of a pretty normal football game between two good teams. It ruins the game for me because you hear the announcers talk about things that

competiit became to watch the summer games, because, as a family, we finally son to pay attention! My sister was doing

thing that these big-name athletes like Missy Franklin and Michael Phelps were doing. It was the Super Bowl of swimming, so we all sat as a family and watched. I don't know if that has anything to do with why I love the Olympics now, though, but the family sentiment probably plays a part in it.

So why do I love the Olympics? I've thought about it and boiled it down

don't make

swimming Anna Boyle/Art Editor

> any sense, and there's a bunch of narratives weaved into the game that don't really have anything to do with football.

> With the Olympics, at least to me, the spectacle and showmanship is condensed into the first night of the opening ceremony, and then everyone wipes their hands off it, and it's all about the sports. They get all the ridiculous pageantry

to a few basic ideas. The and flash in when the host country does their opening ceremony, but after that it's about the athletes and that's what matters.

I also really enjoy watching sports that I've never heard of or know very little about. It's a learning experience to piece together the exact rule set for a cross country skiing competition, and once you get the hang of it, you end up

screaming

she missed two of the targets she's supposed to shoot, or flipyou're your lid because some snow-

some German

girl because

boarder from Canada lands his tricks incredibly That point

ties in to watching the games with family, for sure. By the end of the night, you and your

parents are experts in judging the figure skaters. You know just how to point your skates if you want to get the most distance on a ski jump. You can tell just what the American team needs to do to kick the snot out of any other curling team.

So enjoy the Olympics they're everybody. Grab some friends and make an evening out of it.

Women's basketball loses games versus UAA rivals

MARIKA YANG Sports Editor

The Carnegie Mellon women's basketball team played two University Athletics Association (UAA) games this weekend: one on Friday, Feb. 9 versus Emory University, and another on Sunday, Feb. 11 against the University of Rochester.

Friday's game against the Emory University Eagles was a thriller, decided in the final seconds. For the Tartans, sophomore Katharine Higgins led the team scoring 21 points.

Sophomores Laurel Pereira and MaKayla Filiere each dropped 12 points. Sophomore Laura Ochsner led the team with nine rebounds and three steals, while junior Jenn Mayberger's team-high four assists brought her to 328

school record.

The Tartans opened the game scoring seven straight points, including the first five by Pereira and the final 13 points all coming from free throws. The Tartans stayed on their hot streak for the rest of the first quarter with two more runs of 7-0 and 6-0 giving them a 22-11 lead at the break.

The Eagles began the second quarter with five points to quickly cut the Tartans' lead to six. Unlike the first quarter, the second was relatively balanced with neither team dominating play. The Tartans led the game 39-30 going into half-

In the third quarter, the Tartans led by as much as 12 points, but the Eagles slowly began to inch their way towards the lead. A three-pointer at the buzzer

assists in her career, a new brought the Eagles within three points with the score

now 52-49. Within the first minuteand-a-half of the fourth quarter, the Eagles tied the game at 54-54. The visiting team scored four straight points for a 58-54 lead, but the Tartans soon tied the game again. This continued throughout the quarter with the Eagles taking a small lead only for the Tartans to tie. With a minute left in the game and the Tartans down by two, missed shots by Filiere and Higgins gave the ball back to the Eagles who sealed their win with a layup with seven seconds left in the game.

The Tartans and the Eagles had similar field goal percentages, 39.1 percent and 40.3 percent, respectively.

See WOMEN'S, A11

Courtesy of CMU Athletics

Eagles topple Patriots to earn first championship



MEL KERBER Online Editor

For the first time since the advent of the Super Bowl, the Philadelphia Eagles can finally claim their very own Lombardi trophy. Defeating the New England Patriots in Minneapolis, the Eagles cemented their victory 41-33 in a thrilling, offensively vibrant game. There was only one punt the entire game, and nearly every drive ended with a scoring play for both teams. With a cumulative 1,151 total yards, this Super Bowl sets the mark for the largest number of yards in any NFL game ever, Super Bowl or otherwise.

The game was full of surprises, ranging from spectacular trick plays to dramatic fumbles. Tom Brady, constantly challenging the Eagles drive after drive, fumbled with less than three minutes left in the fourth quarter, essentially sealing

the game for the Eagles. On the other side of the field, late in the second quarter, Eagles quarterback Nick Foles successfully pulled off the "Philly Special" a trick play involving three different players, a pass to the quarterback, and a vital fourth-down touchdown conversion. A similar play was attempted by the Patriots earlier in the quarter, but Brady was unable to make the reception.

For much of the game, defense was almost invisible, and most nonscoring drives were ended by time running out or failure on the end of the offensive team, with both teams missing a field goal early in the game. The Eagles were stopped multiple times on twopoint conversion attempts, and the Patriots missed an extra point, but 75 percent of the Eagles' possessions ended in points of some

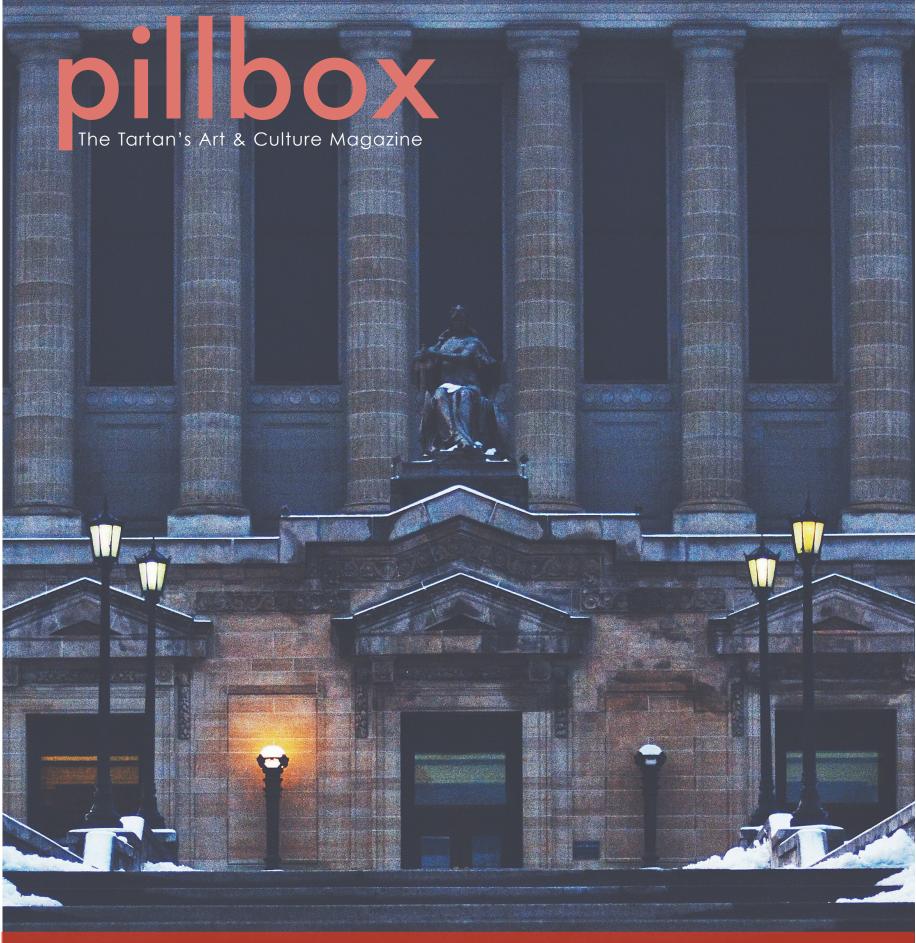
kind, compared to only

54 percent for the Patriots. Both quarterbacks had career games, with Brady throwing over 500 yards and Foles averaging over eight yards per attempt, blowing the regular season statistic out of the water.

Coming down to the wire, with the Patriots surging forward, it was the Philadelphia defense who made the unlikely play of the game, sacking Brady and forcing a fumble. The Patriots managed one more drive in the game and came inches from completing a spectacular "Hail Mary" touchdown pass, reminiscent of an identical one at the end of another Super Bowl, ten vears ago. Philadelphia was able to hold onto their lead for the franchise's first NFL

championship. Foles was named Super Bowl MVP, throwing for three touchdowns and receiving one. Brady the received the league honor before the game.

Junior Jenn Mayberger recorded four assists versus Emory, setting the school career record at 328.



02.12.18 • B4 Halftime Show • B8 The Post • B10 Casey Neistat

table of contents

4	Super Bowl LII Halftime Show
6	Call Me By Your Name
8 The P	ost seese

3	Advice for Awkward People: On Valentine's Day
3	Bar Buddies: Tiki Lounge
5	Justin Timberlake's Man of the Woods
10	A Talk With Casey Neistat
11	Puzzles: Your weekly mental warm up
12	Comics: Reflections, valentines, and, jobs
14	Horoscopes: The signs' romance novels titles

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Advice for Awkward People

On Valentine's Day

Dear Jade,

Valentine's Day is coming up, and I already know it is going to SUCK. My friends are either pining for someone and being all mushy about it, or they're in loving, committed relationships. And then you have me, still hurt from the last time I put my feelings out in the open and not in the mood to do it again. More importantly, I've somehow gotten pushed into a strange position where my friends keep turning to me for relationship advice even though I've never been in an actual relationship. Maybe I should feel honored or touched, but for the most part I'm starting to remember all these feelings that I don't really wanna touch again in a long time. And I really don't know how to get out of that headspace. Can you give me a single gal's survival guide for Valentine's Day?

Sincerely, Somehow I'm Not Getting Love Ever Dear SINGLE,

I know what it's like to not want to think about love and to pretend those feelings just don't exist. You're still hurting and every other person that's in a relationship seems like they're only doing it to mock you. While you know this isn't true and that the people you walk past on the street holding hands don't know you exist, it still feels like a personal attack. I won't lie to you and say that being single is the best thing ever, because it's not fun after you've been taken through the wringer with love. But just because being single might not be all that fun for you right now, that doesn't mean Valentine's Day has to suck.

I've always been a fan of the holiday regardless of my relationship status. Take advantage of this day to wear your cutest pink and red outfit, go to Starbucks and get that pink drink, and fill your heart with the love you have for everyone around you, whether it's friends or family. I love

a lot of people and it's nice to think about that on Valentine's Day.

The single gal's guide doesn't always have to be a ten page guide on how to go out in your hottest outfit with all your single friends and post pics that will make your ex text you at 3 a.m. Sometimes it's just reminding yourself that love exists outside of the person that broke your heart and remembering that you will find that again.

But if you decide to go down the going out route, a few drinks and a hot outfit helps too.

- Jade

Need advice? Send queries to https://goo.gle/xk23wd

Bar Buddies: Tiki Lounge

For the people who like piña coladas and getting caught in the rain

Contrary to popular belief, I don't go out to a new bar every weekend. But lucky for you guys, I've been to enough bars in Pittsburgh that I could write this every week for a year and never leave my home.

So let's reach back into my archives of nights out and talk about Tiki Lounge in Southside. I went to this exciting, tiki-themed bar on Halloween and it was certainly a night to remember.

The location: Tiki Lounge is located on E. Carson St. This place is a considerable distance outside of the Oakland, Squirrel Hill, Shadyside bubble. I hope you're going with at least four friends because while the Lyft there may not cost more than \$10, I guarantee you that the one you call at 2 a.m. when everything closes will come with skyrocketing surge prices. E. Carson St. quickly goes from a place to bar hop to a parade with no

floats as everyone floods the streets figuring out what to do now that the bars are closed. Maybe this is just because I went on Halloweekend, but it was absolutely packed and it took forever to get a Lyft.

This outside post-party can still have some excitement though. I met quite a few characters out there including a guy who asked if he could marry me and take me to Australia. I politely declined.

The drinks: This is not the place to get drunk. They've got a vast menu of tasty and delicioussounding drinks. It's worth it to order at least one, but at around \$10 each that was about my limit before I had to switch back to mixed drinks. Their mixed drinks were fine but definitely on the pricier side. I would suggest not making this place your only stop for the night, you'll find cheaper drinks somewhere else.

Jade Crockem | Contributing Editor

The vibe: The best way I can think to describe this place is an adult Rainforest Cafe. There was a waterfall in there. The front of the place has a bar and a few tables and the back has a dance floor. I'm not sure if this is a regular thing or if that was just the Halloween special, but it certainly made the place more exciting. With the bar area in the front and the club deeper in, it felt like the mullet of bars, business in the front and party in the back. It won't be your go to place every weekend, but it was a good place to go for one weekend.

Lit or nah: This place teeters between being annoying and being super fun. It was Halloween so I was totally into the decor and over the top luau feel, but if it had been a normal weekend I can't say if I would be. The lituation depends on how into cheesy bar themes you are. The litential is there, you just have to match this bar's excitement.

SUPERBOWL LII HALFTIME SHOW

written by Izzy Sio | Pillbox Editor
art by Connor McGaffin | Junior Artist
Tayout by Emeline Fromont | Junior Staff Designer

People wanted a lot of things out of Justin Timberlake's third appearance at the Super Bowl Halftime Show. They wanted Timberlake to reunite with NSYNC, a la his first appearance on the Super Bowl stage in 2001 where the boy band performed alongside Britney Spears, Aerosmith, Nelly, and Mary J. Blige. Some people wanted some sort of appearance from Janet Jackson, or #JusticeForJanet, after her infamous "wardrobe malfunction" in 2004 where Timberlake accidentally ripped off a piece of her costume during their duet of his song "Rock Your Body." Since his album Man of the Woods dropped a few days before the performance, I was completely expecting him to perform at least two songs from the album besides "Filthy" as some sort of shameless (but later frowned upon) self-promotion. Instead, it seemed that what most people got during Timberlake's Super Bowl Halftime Show was disappointment.

In short, the former NSYNC member's performance was merely average. What Timberlake brought to the U.S. Bank Stadium was great and entertaining, but frankly didn't feel new from the pop icon. For the most part, I felt like I was watching a Timberlake concert in Minneapolis, especially during the first half. While I have never been to one of his concerts (and am not sure if I plan to, since tickets start at \$95), Timberlake's smooth transitions between each of his familiar hits almost felt too perfect during the first half of his performance. After opening with "Filthy," the divisive lead single off of Man of the Woods, Timberlake performed three of his hits "Rock Your Body," "Senorita," and "SexyBack" in such a fluid and effortless way that almost felt too rehearsed. The same applied for his next three songs, "My Love," "Cry Me A River," and "Suit & Tie," thus only supporting the feeling in my gut that maybe I was watching some polished yet monotonously entertaining robot on screen. However, some of these statements can still be interpreted as compliments; the first half of Timberlake's Super Bowl Halftime Show only served to solidify his overwhelming talent and to remind people of his relevance in the mainstream realm of pop music. At the start, Timberlake was effortlessly suave and entertaining.

The second half of Timberlake's performance was when things became a little more interesting, in a variety of senses. After performing "Until the End of Time," a seemingly forgotten ballad from his many singles, Timberlake transitioned into a cover of Prince's "I Would Die 4 U," making the Minneapolis crowd go crazy with excitement. However, Timberlake's performance alongside a video projection of the Minneapolis-born icon was met with division and controversy over the fact that the video projection was almost a hologram of the late artist, who died April 21, 2016. Additionally, Timberlake's whole tribute faced controversy, with reasons varying from how Prince never wanted anyone to "do a hologram"

of me" to how Timberlake and Prince's feud from the previous decade caused disapproval among fans of Prince. While the segment felt a little dated giving that he died over a year ago, and felt a little bit extra after Timberlake decided to light not only the whole stadium but the entirety of Minneapolis in purple, I did see how Timberlake wanted to respect Prince and his legacy on music through his cover. For the most part, it seems that this controversy will fall along quieter but similar lines of Jackson's "wardrobe malfunction," where the truth behind the performance seemed to be shrouded in mystery.

It is notable that in their more recent halftime shows, the Super Bowl features artists that had big breaks or comebacks five years ago in an effort to make their show "safe" (to avoid any further wardrobe malfunctions) and to cater to the larger crowd. To supplement that fact, it was only after I marinated on my previous robotic gut feeling for a few days that I looked back and found out that the choreography for some of his musical numbers, most notably "SexyBack," was almost the exact same as his choreography for his 2013 performance at the MTV Video Music Awards, which was generally more entertaining and fulfilling. It is probably this detail and his lyric "No disrespect, I don't mean no harm" from "Rock Your Body" that best sums up his Super Bowl performance: that for the most part, Timberlake wanted to not stir a larger pot so he wanted to emphasize his previous works and his huge talent. Unfortunately, he ended up doing so anyway.

If you liked Man of the Woods and you're looking for Timberlake's return to the realm of pop music in an overtly grandeur fashion, Timberlake's Super Bowl LII Halftime Show will satisfy your needs. But if you want to watch a better version of the show that's free of controversy and division,



At 37, Justin Timberlake has decidedly transitioned into the fourth phase of his career. In the first, he was the star of a boy band that released three blockbuster albums. In the second, he established himself as a bonafide popstar, paving the way for any former boy band member to solo success. In the third, he focused on acting and being immature with Jimmy Fallon, punctuated with a two-part album in 2013, The 20/20 Experience.

And now, in the fourth, Timberlake is the superstar who remains essential to the music industry even when he's not making music. He has settled into marriage and fatherhood, with no need or desire to do what anyone else is doing, or to do something novel. That could not be more clear on his new album, Man of the Woods.

After a rootsy album commercial that turned out to be more of a red herring than a preview, the album is a retread of old ideas and an attempt to use those old ideas to create something new. Working with familiar collaborators, Timbaland, The Neptunes, and Danja, Timberlake dabbles in a plethora of styles genres, from the familiar soul and R&B that blends with strains of funk, folk, and country. The production is slick and polished, sometimes too much so that Timberlake often recedes into the background of his songs, no longer the star or the main attraction.

On lead single "Filthy," the robo-funk beats and layered vocal effects drown out Timberlake's voice, which doesn't have much to say in the first place. "Midnight Summer Jam" is filled with throwaway platitudes about having fun in the South and the far more interesting combination of violin, guitar, and harmonica, but overstays its welcome, reminiscent of The 20/20 Experience's bloated track times.

"Sauce" and "Wave" both are let down by hollow lyrics like "I love your pink, you like my purple" and "I got a couple fish then we can dine," while the former is saved by a catchy melody and blaring electric guitar and the latter is a complete misstep with no hook to speak of.

Man of the Woods hits its stride with the title track, with Timberlake being both effortlessly cool and convincingly earnest. The soft percussion hip-hop beat allows his voice to shine, both in his lower register and in falsetto.



Both collaborations on the album, with Alicia Keys and Chris Stapleton on "Morning Light" and "Say Something" respectively, are standouts. On "Morning Light," we find Timberlake at his most intimate, singing of long-term love with Keys. The old-school soul and the slow, saccharine melody do their job, imposing images of lazy Sunday mornings in bed. The song also has my favorite line on the album, the cheesy but honest "In the whole wide world of guys/I must be the luckiest alive."

Stapleton is an expected quest, after his and Timberlake's show stopping performance at the 2015 CMA Awards, which started talk of Timberlake's possible shift to country. "Say Something" will get play on both pop and radio, and is one of the best songs on the album. The acoustic guitars and electronic beats are an interesting mix that makes the song simultaneously rustic and modern.

The album ends strong, with "The Hard Stuff," co-penned by Stapleton; and "Young Man," featuring Timberlake's wife and son. "The Hard Stuff" continues the theme of marriage that permeates throughout the album. It's soft and mellow, and benefits from being the shortest track on the album at 3:15. "Young Man" ties the album together, a sentimental declaration of love for his son. Timberlake's first album since his son's birth, the title of Man of the Woods is derived from his name, Silas, which means "of the forest." Unlike many of the songs on the album, "Young Man" has something definite to say.

Man of the Woods is an intriguing mess by a musician known for his slick, assured style. By forgoing a specific genre and borrowing from many influences from the past, Timberlake isn't interested in creating and shaping the pop music of 2018. And in the end, that's okay.

written by Marika Yang | Sports Editor art by Anna Boyle | Art Editor layout by Paola Mathus | Visual Editor





It has been a year of breakout stars and indie movie success, and the coming-of-age romance, Call Me By Your Name boasts both. Based on the novel by André Aciman, the film takes place in 1980's rural Italy and follows Elio (Timothée Chalamet), a precocious teen spending his summer in the countryside, and Oliver (Armie Hammer), a graduate student working for Elio's father. Over the course of a sun-soaked summer, the characters navigate unexpected stirrings of hesitant romance that bloom into true connection.

Now, this isn't the kind of gay love story we're used to; the love interests are not threatened by physical violence, social realities, or cruel outsiders. Instead, their relationship is threatened by the kind of struggles that impede all forms of intimacy: insecurity, inexperience, guilt, fear, and the impending end of summer. Some

viewers have criticized the film for its lack of any real conflict, arguing the film is devoid of any realistic fallout or complication. And while that may be true, I can't say I minded.

From Elio's encouraging father, to Marzia, his supposed girlfriend, the film's characters are incredibly gentle and ultimately accepting of Elio's journey. Each relationship, be it familial, friendly, or romantic, is so carefully crafted that you find yourself equally as invested in the father's bittersweet support, and Marzia's innocent hopefulness as you do the consuming passion between Elio and Oliver. And while Elio and Oliver's relationship is sexual, it's not necessarily sexy. Their love scenes and even daily interactions are awkward and cautious in a refreshing and endearing way that speaks to Elio's age and character.



The authenticity of Elio and Oliver's relationship is due in large part to the film's screenplay, which incorporates key moments from the book (including the famous, "call me by your name and I'll call you by mine" line) and gives additional access to Oliver's character that you won't find in the original novel. But, the relationship would go nowhere without the sense of time and place established through the setting itself (and Armie Hammer's wardrobe). As the men romp, bike, and swim through forests, fields, and streams, it seems there's no better place to fall in love than rural Italy. The film's saturated colors, delicate lighting, and lush Italian scenery leave you yearning for summer and a romance of your own.

Any commentary on the film would be incomplete without acknowledgement of the impeccable soundtrack. The film's mix of

classical compositions, Italian '80s pop hits, and original pieces by Sufjan Stevens is reason enough to watch this film. Stevens wrote two original tracks for the movie, one of which, "Mystery of Love," is up for "Best Original Song" at this year's Academy Awards. And that's not the only potential win for Call Me By Your Name; the film is also nominated for "Best Picture," "Best Adapted Screenplay," and newcomer Timothée Chalamet is nominated for "Best Actor" for his portrayal of Elio.

With the Oscar's quickly approaching, it's difficult to know where to start in terms of what films to see and what hype to listen to, but I can guarantee the praise surrounding Call Me By Your Name is to be believed. Simply put, it's beautiful.

written by Caleb Miller | Publisher art and layout by Tracy Le | Visual Editor

The Post

Probably the most impressive thing about Steven Spielberg's new movie The Post is just how quickly it was made. The film opened on Jan. 12, just nine months after Spielberg first read the script and decided that making this movie, and making it fast, was a must. Taking just over two months to film, Spielberg zipped through the first edit in only three weeks before sending it over to long-time collaborator and composer John Williams. According to a Washington Post story by Stephanie Merry, Spielberg's efficiency and determination was key: he would even use his spare hours on set to go back and cut down scenes he had already shot.

Why was Spielberg in such a rush to bring The Post to theaters? The answer lies in the film's timely subject matter: The Washington Post's attempts to publish The Pentagon Papers in 1971. The documents were a classified

government study that detailed how several American presidents had lied to both the people of the United States and Congress regarding the U.S.'s 30-year involvement in the Vietnam War. Part of the papers were at first partially leaked by The New York Times, prompting President Richard Nixon to order the newspaper to stop production through a federal court injunction. The Times appealed, leading to a Supreme Court case.

While this battle raged on, The Washington Post started printing their own stories based on portions of the documents they had obtained. Once again, the government tried to thwart the free press, and The Washington Post was added to The Times' Supreme Court case. While the newspapers would eventually triumph — the Supreme Court ruled 6-3 in their favor the way the movie highlights the attempts of the Nixon administration to limit the freedom of the press feels

particularly relevant in light of the Trump administration's dealings with the media.

Along with a highly important and pertinent theme, The Post features an all-star cast. The film is led by veterans Meryl Streep, who plays Washington Post publisher Kay Graham, and Tom Hanks, who plays executive editor Ben Bradlee, and each delivers an unsurprisingly stellar performance. Streep's best scene comes when Graham confronts her long-time friend Secretary of Defense Robert McNamara. who had commissioned the report. The tension in the scene is palpable and Streep's delivery is convincingly intense as Graham berates McNamara for sending the children of his friends to a war he knew they could not win.

The rest of the cast, while not as famous in name alone, are all talented actors who have shone in some of the best television shows of the past ten years. Tracy Letts from Homeland, Alison Brie from Community, Zach Woods from The Office and Silicon Valley, Matthew Rhys from The Americans, Sarah

Paulson from American Horror Story, Bob Odenkirk and Jesse Plemons from Breaking Bad and Fargo, Carrie Coon, also from Fargo, and Michael Stuhlbarg, who appeared in Fargo too, as well as numerous movies such as A Serious Man, Shape of Water, and Call Me By Your Name, all have supporting roles. If anything, the movie is worth seeing for the acting talent alone.

At times, the movie falters. The message can be heavy-handed, with the screenplay even throwing around the word "collusion," which has been all over the news concerning Trump's involvement with Russia. Some scenes feel a bit slow, and in others the drama can feel forced — during some of the big speeches, the dialogue can feel slightly corny, and the swelling of the music and Spielberg's circling shots add to the tackiness.

Nonetheless, The Post is a outstanding film. Bolstered by a superb cast and an impactful story, The Post delivers a crucial reminder that the freedom of the press is the First Amendment of the U.S. Constitution and solidifies why it needs to stay that way.

TARTAN STAFF WEIGHS IN SPIELBERG'S NEW FILM

Meryl Streep's nuanced portrayal of Graham and Spielberg's taste for quietly dramatic direction have created a movie that is in equal parts reflective and inspiring, especially in today's political climate.

4/5 stars — Naviya Singla, SciTech Editor

A movie every current or future journalist should watch. 1/5 stars - Marika Yang, Sports Editor

66 Burdened by audience and genre expectations, the plot occasionally struggles to match the gravitas it is afforded. Nonetheless, Streep's brilliantly understated performance, the timely topic, and Spielberg's deft storytelling make The Post a compelling feat of filmmaking.

4.5/5 stars - Anna Boyle, Art Editor

I found the movie to be very inspiring. It showed just how important and powerful a role the press has in society. Movies like this and Spotlight make me feel really proud to work on a newspaper staff.

5/5 stars - Michelle Madlansacay, Pillbox Editor

Get ready to cry about the freedom of the press! 5/5 stars - Nova Mattson, News Editor

While the movie is a bit dragging during the second act, The Post is still a highly important film to watch calling for greater transparency, and the fabulous performances of Tom Hanks and Meryl Streep help to propel this movie to a level of emotion and inspiration that only Steven Spielberg can evoke from a motion picture.

4/5 stars - Izzy Sio, Pillbox Editor

A Talk with Casey Neistat

written by Adam Tunnard | Junior Staffwriter layout by Ikjong Choi | Layout Designer

ast Tuesday, Carnegie Mellon was visited by filmmaker, entrepreneur, and YouTube star Casey Neistat. Neistat, best known for his multimedia company Beme and his inventive style of vlogging, provided some choice advice to Carnegie Mellon's aspiring filmmakers:

"Nobody knows anything."

Coming from an accomplished filmmaker who presumably knows a lot about his work, this advice was unexpected. A few laughs came from the audience, who thought his advice was just a joke, but Neistat was as serious as could be. As he told his life story though a series of jokes interspersed with videos from his career, Neistat related how utterly unpredictable life can be, and how determination can take you from humble beginnings to national acclaim.

Neistat first entered into the job field as a dish washer in a small seafood restaurant in an even smaller town. He started creating videos as a way to share his feelings and have his voice be heard, hoping to impact others from his tiny community in Gales Ferry, Connecticut. He continued to make videos, eventually moving to New York City. Over the course of several years, he and his brother, Van Neistat, landed

an HBO show The Neistat Brothers in 2010. Being in the company of shows like Boardwalk Empire and How to Make It in America, the show never gained guite the footing they had hoped for. Undeterred, Neistat kept his energy on filmmaking while simultaneously working as a bike messenger in New York. This is where he created the immensely popular "Bike Lanes" video. Currently at 20 million views, this video was the one that established him in the public eye. Neistat was just "angry about having to pay \$50 for riding his bike outside of the bike lane, and decided to make a stupid video about it." This "stupid video" in due time lead to a three-film collaboration with Nike, exploding his career as a filmmaker both on YouTube and on the commercial scene. As he so pointedly remarked during his lecture, "who could have foreseen that happening?"

It's here where his advice — "Nobody knows anything" — comes into play. He tells students that he "had no idea what he was doing, but he was doing it anyways," determinedly chasing after his goals and taking down any obstacle that stood in his way. "Big successes can come from unexpected places," saying he could never have guessed that his "stupid video" about New York's transportation laws would result in greater long-term success than an eight-episode HBO series. While life may be wildly unpredictable, "it can take you to places you'd never known."

Like many of the others at the lecture, I found Neistat's advice to be lighthearted, fun, and incredibly valuable. Entering into such an established field, especially one in the entertainment industry, can be incredibly daunting; we're surrounded by others who've accomplished and experienced so much more than we have, and we can often find ourselves feeling like we truly don't know anything. But that's okay - apparently, no one else does either! And as crazy as that can sound, it brings an important truth to mind: all that matters is our own determination and our own grit. While some opportunities can lead to other amazing ventures, and other opportunities may not, setting our sights on our goals and fighting for them can yield incredible results. Like Neistat, if we stick to our guns and focus our energy on our goals, we can have big successes in our own wildly unpredictable lives.

After warmly joking about his past experiences and videos, Neistat finished his lecture with one last piece of advice, and left the audience feeling motivated and energized:

"Do more, and do what you can't."

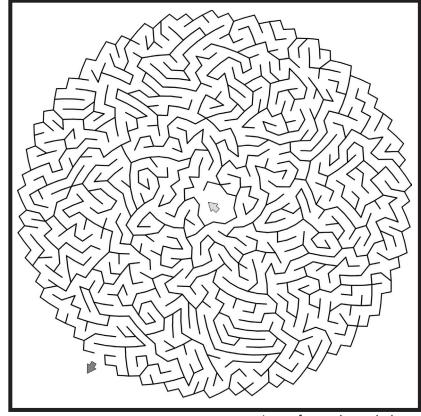


sudoku

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sudoku courtesy of www.krazydad.com

maze



maze courtesy of www.krazydad.com

Solutions from Feb. 5

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crossword

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sudoku



maze

comics

Mirror, Mirror by Charlie Higson













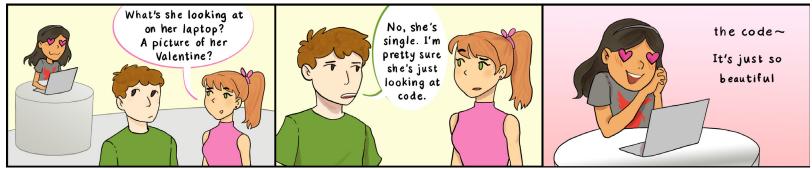




heckifiknowcomics.com

SCS Valentine

by Parmita Bawankule



parmdraws.tumblr.com

New Job

by Anthony Labonte







filbertcartoons.com

horoscopes

horoscopes: The signs' romance novel titles

crossword

Aries

Rough and Ready march 21 - april 19

Taurus

Falling for the Bull Rider

april 20 - may 20

Gemini Bedding the Wrong Brother

may 21 - june 20

Cancer

A Summer Seduction

june 21 - july 22

Leo july 23 - aug. 22

Virgo

Aroused By Two Lions

Untamed Billionaire, Undressed Virgin

aug. 23 - sept. 22

Libra

Mad, Bad, and Dangerous in Plaid

sept. 23 - oct. 22

Scorpio oct. 23 – nov. 21

In Bed with a Highlander

Sagittarius nov. 22 - dec. 21

The Cowboy's Christmas Baby

Capricorn

Kill or Be Kilt

dec. 22 - jan. 19

Aquarius

Dreams of a Dark Warrior jan. 20 - feb. 18

Pisces

Forgive My Fins feb. 19 - march 20

54. Ragtime dance 56. Sister of Zsa Zsa

59. "Wheel of Fortune" buy

60. Magna ___ 61. Happening every two years 63. Not safe

70. Cleaning agent

72. Late bloomers

Crossword courtesy of FreeDailyCrosswords.com

across

- 1. Missing
- 7. Grime 11. 1970 Jackson 5 hit
- 14. Jaw
- 15. Bakery employee
- 16. Junkyárd ďog í
- 17. Swindle
 18. Merchant ship's nationality
- 20. Annoy
- 22. City on the Nile 23. China's Chou En-
- 24. RR stop
- 25. Previous monetary unit of Germany
- 27. ___ dancing is popular with cowboys! 29. Singer Ives
- 31. Bird of prey 32. "The Ice Storm" director
- 35. Revivalists
- 37. Against a proposition 38. Abductor 41. From ___ Z
- 44. Litigant
 45. Attack with severe criticism
- 49. Golfer Ballesteros
- 51. Group of tents
- 53. Ask for divine guidance

- 66. Treeless tract
 67. "___ Ventura" was played by Jim Carrey
 68. Bone: Prefix
- 69. Tantalizes
- 71. Spotted

down

- Accessory
 Sheikdom in the Persian Gulf
- 3. Hoarding
- 4. Decorative case
- 5. Bird homes
- 6. Pay for
- 7. Dreadful 8. Bump off 9. Rule, for short
- 10. Instant 11. Photochemical
- 12. Mexican dish
- Freezing mixture
 Went under
- 21. Bar bill
- 25. Type of school or cook26. Failures
- 28. Antlered animal
- 30. Render weaponless
- 33. Frozen Wasser
- 34. Elicit
- 34. Elicit 36. Fairly dry, when describing champagne 39. Type of tide 40. Knock vigorously 41. Not sociable

- 42. Period of a renter's lease
- 43. Supervise
- 47. Wicker receptacle for documents 48. Blind
- 50. Italy's Villa d'___ 52. Architect I.M. 55. Folded food
- 57. Roman goddess of the hearth
- 58. Pays to play 61. "It's ___ real" 62. Cool!
- 64. Exploit 65. Numbered rd.

monday

Carnegie Mellon Chamber Series: "Russian Duos" 7:30 - 9:30 p.m.

Kresge Theater - CFA Building Info: www.facebook.com

If you're interested in classical music, you should attend this event hosted by the Carnegie Mellon University School of Music. Tickets are free and the event is open to the public!

Joe Biden: American Promise

7:30 - 8:30 p.m.

Carnegie Music Hall of Oakland 4400 Forbes Ave. Pittsburgh, PA 15213

Info: www.facebook.com

Don't miss this amazing opportunity to listen to former vice president Joe Biden speak at the Carnegie Music Hall of Oakland. Tickets include a copy of his New York Times bestseller, Promise Me, Dad: A year of Hope, Hardship, and Purpose. Be sure to get your tickets at www.ticketmaster.com if you haven't done so already!

tuesday

CMU Art Lecture - Cristobal Martinez

6:30 - 8 p.m

Kresge Theater - CFA Building Info: www.facebook.com

Listen to artist and scholar of liberal arts and sciences, Cristobal Martinez, speak about his work on human behavior and emotions. He is a member of the interdisciplinary artist collective, Postcommodity and founder of the artist-hacker performance ensemble, Radio Healer. His work has also been exhibited in museums and events such as the Sundance Film Festival, Museum of Modern Art, and the Museum of Contemporary Art Chicago. This event is free to anyone who is interested!

wednesday

02.14.18

The Princess Bride at AMC Waterfront 7:30 - 10:30 p.m AMC Waterfront 22 300 W Waterfront Dr, West Homestead, Pennsylvania 15120

Tickets: www.amctheaters.com

Need something to do on Valentine's Day? Head over to the AMC Waterfront to watch the romantic classic, The Princess Bride, as a part of their Classic Movie Nights event. Pay just \$5 for general admission!

thursday

State of the University, #MeToo: What **Does That Mean at CMU?**

4:30 - 5:30 p.m Doherty Hall 2315 Info: www.facebook.com

Discuss your opinions and listen to what others in the community have to say about the #MeToo movement, at this year's State of the University.

saturday

02.17.18

Lunar Gala 2018: FEROX 8 p.m

Cohon Center 5032 Forbes Ave., Pittsburgh PA 15213

One of the most anticipated events of the year at Carnegie Mellon, the annual Lunar Gala fashion show will be taking place at the university center on this day. You don't want to miss this opportunity to see the work of over 150 student designers, models, and dancers.

Carnegie Mellon Wind Ensemble

written by **Izzy Sio |** Pillbox Editor photos by **Neethi Jayachandran |** Staff Photographer

The Carnegie Mellon University Wind Ensemble's first performance of the semester was a wonderful, heartfelt way to end the week, and was held last Saturday at Soldiers and Sailors Memorial Hall from 4 p.m.-6 p.m. The group performed Walter Piston's "Tunbridge Fair," Charles Ives/Schuman's "Variations on 'America,'" John Mackey's "The Frozen Cathedral," and Hector Berlioz's "Grande symphonie funèbre et triomphale, Op. 15."







