VOLUME CXVIII NUMBER 11

PASADENA, CALIFORNIA

TECH.CALTECH.EDU

IANIIARY 12 2015

Does the House System violate the Honor Code?

JOHN O. DABIRI

Dean of Undergraduate Students

In my prior role as Chair of the Faculty, I learned that effecting change at Caltech typically requires aclearanswertothequestion, "What problem are you trying to solve?" In the absence of a compelling response, new initiatives—however noble in intention or potentially transformative in their positive impact on Caltech—are usually dismissed in favor of a status quo that ostensibly serves us well enough.

I have found the same to be true as the Dean of Undergraduate Students. Many of our students and alumni are quick to defend the institutional structure of campus life, which largely revolves around the House system. I, too, have come to appreciate the integral role that the House system plays in providing a sanctuary for our students

during a uniquely challenging undergraduate education at Caltech. It is a vital component of the Caltech experience. Yet, as I began undertaking the task of learning more about the House system, it became clear that the system itself presents a problem that should not be left unsolved: it potentially violates our Honor Code by taking "unfair advantage" of our incoming freshmen.

One should not raise such a possibility without evidence, so consider the following: each fall we welcome 230 or so of the brightest minds in the world to our campus. Four years later, 82 percent of those students will graduate. However, graduation statistics from the past 10 years show that the distribution of those 82 percent is consistently skewed among the Houses into which the freshmen are sorted during the first week of their undergraduate careers. If you rotated into House

X in that first week, and your odds of graduating in four years jumped to 92 percent. If you rotated into House Y, the probability dropped to 71 percent (X and Y are indeed two of our eight Houses, but they are kept anonymous here for the sake of public discussion). Sixyear graduation rates for cohorts entering Caltech from 2004 to 2008 show a similar trend: over 98 percent of students in House X graduated in six years, a rate better than every college in the United States. By contrast, in House Y, only 84 percent joined the ranks of our esteemed alumni in that time frame (for comparison, the UCLA football team graduates 88 percent of its players in six years). Examination of individual cohorts from 2004 to 2010 suggests that this is no statistical fluke. House performance—in terms of graduation rate, grade-point average, research participation, and other metrics-is consistently

disparate among the same Houses (X, Y, and others) each year. Furthermore, the available data does not indicate that this disparate performance is a result of differing House demographics (i.e. gender, race, household income, or major).

Concerning, yes; but an Honor Code violation? I intentionally left this as a question in the title because Caltech tradition is to allow our students to adjudicate such matters. However, it seems plausible that the current House system takes "unfair advantage" of the freshmen by predetermining, at least statistically, their future educational success at Caltech and doing so (a) without their prior knowledge and (b) without offering a meaningful alternative to the current system. The House system only survives with the tacit compliance of the entering freshmen, but they are not afforded a full view of the costs of their participation in the system when they offer that compliance.

Let me repeat: I believe a House system in the spirit of our current structureisanessentialanddefining feature of Caltech's undergraduate experience. But we cannot treat the status quo as inviolable. Moreover, kneejerk objections to any changes to the system perpetuate a disservice to the student body that, regardless of whether it is correlative or causative, appears to have persisted as far back as we have data available. My purpose in writing this article is not to endorse a particular solution to the problem. Rather, it is to reject the current educational outcomes as a fait accompli and, in the interest of undergraduate self-governance, to encourage our students to propose substantive solutions.

Please email me with your thoughts at jodabiri@caltech.edu.

Fundamentalists murder *Charlie Hebdo* journalists in France offices

CASEY HANDMERContributing Writer

On Jan. 7, the offices of Parisian satirical newspaper *Charlie Hebdo* were stormed by three heavily armed attackers, killing 12 and injuring 11. This article is not a rehashing of the poorly informed and highly opinionated clickbait that tries to cash in on this sort of tragedy. This article is a condensed record of statements by the victims and survivors closest to the tragedy. Where needed, translations to English have been provided.

The dead

- Frédéric Boisseau, 42, a building maintenance worker for Sodexo and Krav Maga enthusiast. He was killed in the lobby.
- Franck Brinsolaro, 49, a police officer assigned as a bodyguard for Stéphane Charbonnier.
- Ahmed Merabet, 42, a police officer on patrol in the area. Wounded in the crossfire, a witness's video shows him approached by one of the attackers, who asked, "Did you want to kill me?" Merabet replied "No, it's OK, boss." He was then shot at point blank range.
- Mustapha Ourrad, 56, copy editor. "Two men have a dispute, they will then consult a Sufi sage to decide between them. The first puts his case; the wise man said, 'I understand you, you're right.' The second then presents his vision;

'Yes, I understand you,' said the wise, 'you're right.' A witness at the scene exclaims to the wise man in wonder, 'How can you tell both that they are right? It is not possible!' 'You're right,' replied the sage."

• Bernard Maris, 68, economist, editor, and columnist. "Let [economists] put on a pointed cap, a red nose, let them wag with their ears and tickle the armpits. What were economists for, one will ask a hundred years from now? To make people laugh."

•Stéphane "Charb" Charbonnier, 47, *Charlie Hebdo* editor-in-chief. Under guard since 2011, he stated on numerous occasions, "I am not afraid of reprisals, I have no children, no wife, no car, no debt. It might sound a bit pompous, but I'd prefer to die on my feet rather than living on my knees."

"Muhammed isn't sacred to me. I don't blame Muslims for not laughing at our drawings. I live under French law. I don't live under Koranic law."

• Jean "Cabu" Cabut, 76, Charlie Hebdo cofounder and cartoonist. "Sometimes laughter can hurt, but it is our only weapon, humor, derision..."

• Elsa Cayat, 54, psychoanalyst and humor/advice columnist. "The knowledge of the unconscious shows us something of the difficult-to-realize, the autonomous, and the power of life in us. The existence of a thought which transcends us, which arises from a singular mind,

but also steps beyond and exists in the universality of the mind."

- Michel Renaud, 69, travel writer and founder of the Rendezvous du Carnet de Voyage art festival, and a guest at the meeting.
- Georges Wolinski, 80, cartoonist. "Humor is the shortest road from one person to another."

"Luckily the world is evil. I could not bear to go wrong in a world that

• Bernard "Tignous" Verlhac, 57, cartoonist. "A caricature ... is the hardest thing to get right. You have to put everything into a single image."

"My work never seems to be done."

The injured

- Philippe Lançon, 51, journalist, shot in the face and in critical condition
- Fabrice Nicolino, 59, journalist, shot in the leg
- Laurent "Riss" Sourisseau, 48, cartoonist, shot in the shoulder
- Simon Fieschi, 31, webmaster, shot in the shoulder
- Several police officers and a nearby driver whose car was struck as the attackers fled

The perpetrators

The attacks were carried out by three French nationals, identified as Hamyd Mourad, 18, who surrendered to police, and brothers Said Kouachi, 32, and

Continued on page 4

Students travel and explore on Caltech Y India Ki Khoj trip



Photo Courtesy of Pushpak Baviskar

Exhausted by the trials of finals week, 10 Caltech students boarded an Airbus 380 and headed off to the opposite end of the globe. After 24 hours of traveling, we were greeted by students from the Indian Institute of Technology (IIT) at Gandhinagar in the Ahmedabad airport in the state of Gujarat.

For some of us, this trip was a return to India, and for others, it was the first time in a new country. For all of us, however, this brief glimpse of India would unfold into a serendipitous adventure of discovery. We embarked on a journey of India Ki Khoj (In Search of India) to witness the society, culture, economy, and people of India as they are today.

Rita Kothari, an author, linguist, and professor of English in the humanities department at IIT Gandhinagar, and Jaison Manjaly, an assistant professor in the cognitive science program at IIT Gandhinagar, conceptualized and created an eight-day schedule consisting of trips throughout Gujarat and talks by experts in their respective fields (covering topics such as Indian fashion and the role of caste in India).

Our search was meant to be not a reflection on a preconceived notion of what comprises the nation of India, but rather an opportunity to observe and analyze the shocking, confusing, or exciting moments that make India such a remarkable place to visit.

-Aleena Patel



FEATURE | PAGE 3 NAILEN REVIEWS CATFISH AND THE BOTTLEMEN'S ALBUM FEATURE | PAGE 4 SOCIAL PRACTICES HINDER TRANS RIGHTS SPORTS | PAGE 5 BASKETBALL TEAMS BALL SO HARD

FEATURE | PAGE 7 BRAD/CHAD TALKS FINANCE

Column

The Caltech Y Column serves to inform students of upcoming events and volunteer opportunities. The list is compiled by Neera Shah from information given by the Caltech Y and its student leaders.

Founded by students in 1916, the Y was organized to provide extracurricular activities planned and implemented by students as an opportunity to learn leadership skills and discover themselves. More information about the Caltech Y and its programs can be found at https://caltechy.org. The office is located at 505 S. Wilson Avenue.

Upcoming Events:

1a. Pasadena LEARNS

Friday | 3:00 - 5:00pm | Madison and Jackson Elementary School | Pasadena

Come volunteer at Madison and Jackson Elementary School! We are partnered with the Pasadena LEARNs program and work with their Science Olympiad team or do regular tutoring along with occasional hands-on science experiments. Transportation is provided. For more information and to RSVP, contact vkkumar@ caltech.edu.

1b. Hathaway Sycamores

5:30-8:00pm Monday Highland Park

Hathaway-Volunteer at Sycamores, a group that supports local under privileged but motivated high school students. There are a variety of ages and subjects being tutored. The service trip includes about an hour of travel time and 2 hours of tutoring. Transportation is included. For more info and to RSVP email Sherwood Richers at srichers@tapir.caltech.edu.

Other Announcements -Beyond the Caltech Y

Walk 4 Freedom: To Fight **Human Trafficking**

Saturday, January 10th, 9:00AM

To mark National Human Trafficking Awareness Day, walk 45 minutes for the thousands of people bought and sold for labor and sex each year in this country. Bring a bottle of water and carry a sign to raise awareness of modern slavery. Walk 2 miles through Koreatown, a neighborhood where known cases of human trafficking have surfaced. Meet at St. Basil's Church at 9am. Simply Walking - no frills, no fee, no cost - only your passion for justice and dignity for all human beings. Bring friends! Begins and ends at St. Basil's Church in Koreatown: 3611 Wilshire Blvd at Kingsley Drive. Sponsored by Southern CA Partners for Global Justice, the Coalition to Abolish Slavery & Trafficking (CAST) and L.A. Metro Taskforce on Human Trafficking. For more info contact Sabrina Wong at (213) 201-6887 or Sabrina@castla.org.

Caltech Y | Extended ASCIT Minutes: Board of Directors votes to update ASCIT Bylaws and Resolutions

SEAN MCKENNA

ASCIT Secretary

ASCIT Board of Directors Meeting

Minutes for 6 December 2014. Taken by Sean McKenna

Officers **Present:** Jamshidi, Nima Badizadegan, Connor Rosen, Connie Hsueh, Patrick Nikong, Sean McKenna

Guests: Margaret Lee

The following ASCIT Resolutions were proposed to be repealed: Resolutions I, II, IV, V, VII, XI, XIII, XV, XVII, XVIII

The repeal of the resolutions was approved by a vote of 5-0-0.

The following amendments to the ASCIT Resolutions were proposed:

RESOLUTION IIIa-**SENIOR CLASS** CO-**PRESIDENTS**

Amended Resolution

SECTION 1. Elections for Senior Class Co-Presidents shall be held using the procedures established in Article VII, following the Ditch Day of their junior year. These officers shall be elected as a team. It shall be clearly marked on the ballot that only registered undergraduates in the appropriate class may vote for the Senior Class Co-Presidents.

SECTION 2. Each Co-President must be a student at the Institute, and a member of the class he represents. Vacancies in the Office of Co-President shall be handled in the manner established in Article VII Section 11 of the Bylaws.

SECTION 3. The class officers shall be responsible for setting the date of Senior Ditch Day and other senior activities. They shall also coordinate the seniors to ensure that no irreplaceable items are damaged as tasks of Ditch Day stacks.

RESOLUTION VII--**COFFEEHOUSE**

Amended Section 4

SECTION 4. Coffeehouse Employees shall report to the Head Manager(s). Their responsibilities shall be as arranged with him.

RESOLUTION IX-CLUBS Amended Resolution

OFFICIAL SECTION 1. RECOGNITION OF CAMPUS ORGANIZATIONS. In order to be officially recognized by ASCIT, a campus organization must be

Steering Committee.

SECTION 2. ORGANIZATION FUNDING.

- (a) The Director of Operations determine the criteria necessary for a club to be eligible to apply for ASCIT Funding.
- (b) Allocation of the club budget shall be determined by vote of the Board of Directors and executed by the Treasurer.
- (c) There will be a primary round of ASCIT Funding during fall term, but clubs can submit funding requests to the BoD at any point during the academic year.
- (d) ASCIT funding will be given by reimbursement only. Clubs that have been allocated funding must contact the ASCIT Treasurer for reimbursement.
- Only clubs officially recognized by ASCIT may receive funds from the ASCIT Treasurer.

RESOLUTION X--THE ASCIT TEACHING AWARDS

Amended Section 3 and 4, replacing original sections 3, 4, and 5, and 6

SECTION 3. The Academics and Research Committee shall determine the recipients of the Teaching Awards by the 6th Monday of third term, and present the awards prior to the end of the academic year. The Board of Directors and the Academics and Research Committee shall determine the form of the awards

SECTION 4. Four awards shall be presented to course instructors and four to teaching assistants without regard to title. No individual may receive an award if they have received an award in the past two academic years.

RESOLUTION XII--MULTIHOUSE FUNDING **Amended Section 2**

SECTION 2. ASCIT shall provide \$500 per house per fiscal year for large Interhouse parties.

RESOLUTION XIV--DUES AND ASSESSMENT **ADJUSTMENTS**

Amended Section replacing original section (a)

modifications to ASCIT dues and assessments shall be given, in writing, to the following offices upon approval of such changes by the student body: Student and Employee Accounts, Collections;

and Financial Aid Office. The Board of Directors shall be responsible for notifying those offices in writing as soon as the Board is aware of the possibility that such action might be taken.

RESOLUTION XVI— **JAMROOM**

Amended Sections 3, and 4, replacing original sections 3, 4, and 6

SECTION 3. All those affiliated with Caltech (JPL, Staff, Faculty, Grad, or Undergrad student) are eligible for Jamroom membership. Membership fees shall be \$30 per year for anyone with a Caltech ID or \$40 for anyone with a JPL ID and lasts for one year.

SECTION The Board 4. of Directors shall appoint (a) Jamroom Manager(s) under recommendation from The Manager(s) Managers. shall ensure that equipment and facilities are properly maintained, keep an inventory of the equipment, organize and manage the membership, and spend the money allocated to the Jamroom in accordance with its budget. The Jamroom Manager(s) shall be (a) Jamroom member(s), but not necessarily (an) ASCIT member(s).

RESOLUTION XXI-- ASCIT **SCREENING ROOM**

Amended Resolution

SECTION 1. The ASCIT Screening Room was created in order to provide a high-quality, on-campus, sponsored facility for ASCIT members to view digital content.

SECTION 2. The online reservation system on the ASCIT Donut website shall determine who has reserved the room. The individual who has reserved the timeslot and specified the movie shall have priority. Any ASCIT member may reserve the Screening Room online at the ASCIT Donut Guests may attend website. Screening Room activities, but only current ASCIT members may make reservations.

SECTION 3. The Screening Room shall only be reserved for SECTION 1. Notice of projector use. "Movie marathons", etc. are not allowed if others are or concerns about a section of waiting to use the room.

patrons should use appropriate to answer any questions. The next judgement in determining that BoD meeting will take place Jan. usage of the Screening Room is in 14, 2105 at 11pm in SAC 15.

approved by the Caltech Clubs Vice President for Student Affairs; accordance with the Institute Policy on Acceptable Use of Electronic Information Resources. ASCIT is not responsible for the actions of Screening Room patrons.

RESOLUTION XXII-STUDENT/FACULTY **CONFERENCE**

Amended Section 2

SECTION 2. A limited number of topics of discussion shall be decided upon prior to the SFC by the ASCIT Vice President for Academic Affairs.

The amendment of the ASCIT Resolutions was approved by a vote

The following amendments to the ASCIT Bylaws were proposed:

- To add to responsibilities and duties of the Treasurer: "The Treasurer must make public the details of the organization funding and reimbursement processes at the beginning of each academic year."
- Removing all mentions of "error" in the voting process for elections. The term "error" was made obsolete with the introduction of online voting systems and is a relic from paperballots. This change is consistent with the RevComm Ruling that effectively makes "error" zero.
- Remove the deadline for ASCIT Appointments. This is a holdover from when ASCIT elections were completed during second term. The timeline for appointments will remain as stated in the current ByLaws and begins as soon as possible following Installation of the new BoD.
- The procedures electing the CRC Student Co-Chair are incorrectly referencing Article VIII. We propose a change to "Article VII."

The amendment of the ASCIT Bylaws was approved by a vote of

The full text of the original and amended ASCIT Bylaws and Resolutions is posted on the Olive Walk and on Donut.

If anyone has any questions the minutes please email the SECTION 4. Screening Room appropriate officer. We are happy

News briefs from around the globe

Here's a brief list of events from the past week, compiled by The California Tech editors:

Millions rally throughout France after Charlie Hebdo attacks

3 million people took part in unity marches across France, with at least 1.5 million in Paris alone [BBC]

Winter weather causes multiple car accidents

150+ vehicles involved in car collision due to inclement weather in Michigan [TIME]

Bombings continue in Yemen after attack near college

38 killed, many injured by car bomb set off in front of Police College in Yemen capital, Sanaa [CNN]

NAILEN MATSCHKE Contributing Writer

Indie rock is certainly one of the most popular genres of modern music, and as a result of the surge it experienced during the 2000s, it has also become one of the most saturated. The artists that spearheaded indie's rise during the previous decade continue to be dominant forces in the genre, and newer bands vying for success face tough odds trying to stand out among an ocean of their peers. After putting out several solid singles, playing an impressive number of festivals, and winning the BBC Introducing Award at the inaugural BBC Music Awards, the group Catfish and the Bottlemen, from Llandudno in North Wales, seems like a strong contender for getting some time in the spotlight. The group's debut album, The Balcony, was released on Sept. 15, 2014 in the UK and performed well, reaching a peak position of number 10 on the UK Albums Chart. This past week the album was released in the US, and now it remains to be seen if it can achieve the same sort of commercial success here. After listening to it, I do see this as a possibility, but I highly doubt that The Balcony will be the album to do it-something which is okay for them at this early stage, but will hopefully inspire them to step it up in earnest on their next release.

One thing that is quickly revealed about Catfish and the Bottlemen is that the band doesn't like to take a lot of chances. The first five tracks on The Balcony were all released as singles, and each of them is a standard-length, inoffensive, somewhat upbeat indie

rock song, containing at least a few of the tropes we've come to expect from the genre. You have your two guitars with clean tones on the verses and distortion on the choruses, drums and bass that have barely any role besides supporting the rest of the music, and overall unremarkable with themes related to such favorites as "call[ing]you up drunk" and how important it is to not "let you down."

The sixth track, "Hourglass," is then quite a bit slower and more personal than everything else on the album, but after that

the rest are just like those at the beginning. It's tough not to see this approach to their songwriting and style as cautionary and aimed at the largest possible market. The band's music may look and sound all right, but it is missing some of the passion or effort required to make it feel like more than just another indie band's album.

This doesn't appear to be for a lack of ability, since one of the more impressive aspects of the album is how tight the band sounds throughout it. What's really impressive is the precision of each instrument, and the range that the ends up being the defining quality bandtakestheinstrumentsthrough. The choruses on each track sound spacious, with the guitars doing a



-http://catfishandthebottlemen.com

good job of complementing each other instead of playing the same lines, and the vocals getting just loud and emotional enough to grab your attention. Each instrument nails its most difficult passages, but when instruments deviate from repeating riffs they run into some creative difficulties, with just about every solo coming off as weak, mostly comprised of simple note patterns (the closer "Tyrants" is the worst offender) that don't add to the music.

This sort of obvious competence without brilliance is what I think of this album. While listening to The Balcony, at no point have I ever stopped enjoying the music, but at the end

> there's really not much that makes a lasting impression. Every song sounds like a mix of ideas borrowed from the acts that paved the way for Catfish and the Bottlemen, played well but ultimately not as stylishly or memorably as when we first heard them. During particularly energetic moments the pulsing beat of "Pacifier" the heavy chorus groove in "Kathleen," vocalist Van McCann's voice breaks a bit.

but it always sounds controlled and calculated, falling well short of the engaging performances we expect from experienced musicians such as Alex Turner (of Arctic Monkeys) or Julian Casablancas (of The Strokes). The guitar parts carry out their roles, but frankly they all sound like they'd be boring to play, since many of the album's high points are driven by the vocal melodies and on the whole the album is devoid of any killer riffs, something which, again, the most prominent indie acts are no strangers to. I suppose there is something to be said for

Catfish and the Bottlemen's ability to blend the elements that worked for predecessors such as Arctic Monkeys, Vampire Weekend, or The Killers. Catfish and the Bottlemen's mechanical ability to play with this material and put it all together smoothly is impressive, and I know that the similarities are not an attempt to just copy them with little effort. However, the band doesn't really pull anything off as well as it's already been done, and The Balcony adds little to the sonic spectrum of indie rock since the work is so derivative of others. At the end of the day, Catfish and the Bottlemen's music sounds good, but provides few justifiable reasons to listen to it.

Far from every band that gets big has a hit debut album, and to me Catfish and the Bottlemen's first release The Balcony has failed to impress. What should be a healthy appreciation for the modern indie rock scene comes off as a reliance on the same sort of tired melodies, rhythms, and lyrical themes we've heard for several years, which makes me question why anyone would choose to listen to a toneddown Arctic Monkeys when they could just listen to the original. Still, Catfish and the Bottlemen does for the most part display impressive technical ability and an easy-to-overlook aptitude at writing cohesive instrumental parts. Hopefully, given some time to mature, the band will be able to produce more material that excels both sonically and artistically.

Neo-psychedelic musician Panda Bear's release is compelling but mediocre

CRYSTAL LIANG Contributing Writer

In his latest release, Panda Bear Meets the Grim Reaper, Lennox (a.k.a. Panda Bear) tries once again to blend unconventional pop melodies, psychedelic sound effects, and esoteric yet poignant lyrics together to create an immersive soundscape that engages and challenges the listener. Or at least, this is what one would expect from a Panda Bear and Animal Collective-affiliated work. But this time, Lennox's attempts fall a bit short.

The album opens strong with the evocative "Sequential Circuits." A medieval organ plays a lumbering, portentous melody as bubbling noises and frog-like croaks simmer in the background, sometimes morphing together, becoming indistinguishable. Meanwhile, Lennox's vocals float in a haze of electronic bleeps, eventually condensing into a somewhat distant chorale for the main part of the song. One imagines walking through an ancient swamp, inhabited by fey, elusive creatures of lore. In "Mr Noah," "Davy Jones' Locker," and "Crosswords," Lennox continues to experiment with similar trippy sounds: grating, whooshing sounds and samples of whining dogs, distorted in a way reminiscent of diffraction spiking,

which open "Mr Noah"; glimmering noises that trail away, like comets that fly past and leave behind a thin line of glowing debris; dry, bouncy synths; a stuttering piano, distorted almost beyond recognition. Some '90s hip-hop-inspired beats add an extra punch to "Mr Noah" and "Crosswords," and a panning effect in "Davy Jones' Locker" simulates the rocking of waves.

Next, the listener enters the rarified space of "Butcher Baker Candlestick Maker." Echoing wooden percussion and soft '80s synths back a catchy melody. Panda Bear establishes a distinct atmosphere here with ethereal electronic sounds and metallic wind. If "Sequential Circuits" is an eldritch swamp, then "Butcher Baker Candlestick Maker" is the stratosphere.

The tracks on this album that have a clear concept or vision prove to be the stronger ones. "Tropic of Cancer," for instance, evokes the aesthetic of classical romanticism, opening with a few bold notes from brass instruments and then floating dreamily along on a distant harp sampled from The Nutcracker while Lennox croons a delicate melody that meanders on a path of exquisitely emotional turns. "Lonely Wanderer" is like a dying dream, with samples of Debussy's elegant Arabesque No. 1 that repeat like looping segments

of time or memory, punctuated by harsh attacks of noise like stabs of pain. The lyrics reflect the thoughts of someone in their last moments, reflecting on their life as well as their dying state: "If you look back / would you look back?", "How do you feel?", "Was it worthwhile?"

Conversely, tracks without any unifying idea risk being redundant. A particularly egregious example

is "Come to Your Senses," which runs for a monotonous seven minutes with little melodic variation. Trippy noises are placed clumsily, as if to distract the listener from the tedium. The track chugs along like an industrial steam train, decorated with a few perfunctory splotches of neon paint. "Selfish Gene" and "Acid Wash" are similarly forgettable with stale melodies and pointless psychedelic sound effects. "Boys Latin" escapes mediocrity as Panda Bear succeeds in crafting a compelling melody and in using effects, such as the squelching bass and fragmented, chanting vocals to create a strong track.

Panda Bear Meets the Grim Reaper is overall a decent work, likely to please fans but not very impressive otherwise. The pervasive psychedelic sounds can feel tired and can add little to the music, especially when used without much apparent thought. Although Lennox clearly has a solid command of melody and harmony, which is evident in the stronger tracks, some songs are likely to bore listeners with limited and repetitive choruses. Still, Panda Bear's innovative genius does sometimes

shine through in a number of compelling segments, which makes the album worth listening to at least once, especially for Animal Collective completionists.

Favorites: "Crosswords," "Tropic of Cancer"

Least favorites: "Come to Your Senses," "Selfish Gene"

Overall rating: 3/5



-http://acus.dominorecordco.com

FEATURE

#100HappyDays rebooted

KATHERINE GUO Contributing Writer

100 Happy Days? Wasn't that some Instagram meme that passed through ages ago?

According to Google search trends, "100 happy days" and similar searches started growing around the beginning of 2014 and peaked in April, soon declining in search volume almost as rapidly as it rose. For those unaware of 100 Happy Days, it was a project that challenged people to post a picture every day, for 100 days, of something that made them happy to Facebook, Instagram, Twitter, or directly to 100happydays.com with the hashtag #100happydays.

When I heard of this at first, around the time a few of my friends had begun their own #100happydays challenges, I was skeptical. Who has 100 happy days in a row? Not even Beyoncé has 100 happy days in a row, probably. Also, was it really necessary to remind others how happy you were every day through social media? I remained skeptical-neutral about the project until it mostly blew over and I had the idea to make my New Year's resolution and write this article.

Commiseration is a common form of bonding at Caltech. "I'll have to pull an all-nighter," "I haven't slept for about three days," or "I just don't sleep anymore" are all commonly heard in late-night set depression fests, as if these four years are a competition to see who can be the most sad and graduate on time. Basically, it isn't too hard to find someone suffering vocally the night before a set is due.

Being a frosh, this past winter break was my first experience of what quarter system breaks are like, and of the contrast between being at Caltech and being on break. One of my friends commented on the grind of the quarter system like being a racecar that comes home for a pit stop every ten weeks. With all the doctor and dentist appointments, it did feel like I was a machine to be maintained. But more importantly, I noticed I had a lot more free time to be alone with my thoughts instead of constantly doing something. This, combined with me having a difficult time answering how Caltech was at family gatherings, led to my New Year's resolution.

I'm going to isolate at least one happy moment every day for 100 days. Disclaimer: this isn't necessarily equal to being completely happy for 100 days, but I'd at least like to record one thing that made me happy every day. If I ever have a particularly bad day at Caltech during this goal, which isn't out of the question, I suppose I'd have to say "I saw an especially cute squirrel today." Here are a few things I've entered in my journal so far:

-Lucked out at a white elephant party and got a ninja minion figurine (as opposed to some enchanting used earbuds) options as buddy trip car baked delicious cookies -Woke up early Chandler breakfast

I won't be using social media; I'm just writing for myself. I'd also like to challenge readers of this article to do the same, mostly just for kicks. Wouldn't it be great to look back at 100 reasons you were happy? It can be great for your attitude to notice how great the highly-budgeted landscaping was one day instead of worrying about the next set, at least for a little bit.



People who participate in the #100HappyDays challenge often keep a journal.

Trans people face disadvantages due to gender identity

HANNALORE GERLING-DUNSMORE

Contributing Writer

Last week, we covered the tragic death of Leelah Alcorn, a 17-yearold transgender girl from Ohio who killed herself due to her parents' lack of acceptance of her gender identity, and despair over her lack of hope for a happy life as a trans woman. She posted a suicide note on the popular blogging platform Tumblr, where the note was viewed thousands of times before being taken down. However, her message was heard clearly: for many trans people, living in this society truly does not seem worthwhile. Sadly, Alcorn's death is far from an isolated incident.

A cisgender person is someone who does identify with the gender they were assigned at birth due to their genitalia and/or chromosomal make up, and a transgender person is someone who does not. Sometimes trans people identify as the other "binary gender," meaning male or female, and sometimes they identify as a "non-binary gender," usually meaning their gender identity is a mix of male and female, though sometimes they reject that classification system entirely.

Regardless of their specific gender identity, though, trans people face massive discrimination and terrifying violence in this country. At least 41% of trans people have seriously considered or attempted suicide, while the national average is 4.6%. About 20% of trans people have been refused a domicile due to their trans identity, and 10% have been evicted. Similarly, 20% of trans people have been kicked out of their homes by their families, and up to 40% of the homeless youth in America are LGBTQ. Nearly onethird of homeless trans people have been denied access to a shelter due to being trans. Despite these statistics, there still are not strong, explicit laws protecting housing rights for trans people. Even worse, 69% of trans people who have faced homelessness because of their

trans identity have attempted to kill themselves. Additionally, it is legal in 32 states to fire someone for being transgender, with no federal law protecting trans people from workplace discrimination, further putting trans people at risk of poverty or homelessness.

Of course, the horrors of homelessness itself are not the only reason trans people have a much higher risk of suicidal thoughts or suicide attempts; fundamentally, it is the lack of acceptance and support they have to deal with on a daily basis. In all but two states (California and New Jersey), "conversion therapy"-such as that Alcorn was forced to attend—is still legal, despite every major professional psychological organization decrying it as ineffective and harmful. Conversion therapy is the practice of trying to force someone who is a gender or sexual minority to be cisgender and heterosexual.

Even if a given trans person doesn't have to face the horrors of conversion therapy and is given support from family and friends, finding adequate healthcare is difficult and expensive. Many doctors struggle to properly treat transpatients, and many, if not most, insurance providers do not cover gender confirmation therapies, such as hormonal medications and genital reconstruction surgeries. This is despite such therapies being considered curative for "gender dysphoria," which is the DSMrecognized condition describing the severe discomfort trans people have with their assigned gender. One has to wonder, if insurance will cover Viagra for aging men to have intercourse, and if insurance will cover reconstructive surgery if someone breaks his or her nose, why aren't insurance companies covering the curative treatments for a condition that places the patient at a nearly ten-fold risk for suicide?

Unfortunately, these therapies aren't just for the happiness of the patient. Trans people face an enormous risk of violence—in all states except California, it is legal to arguethat murdering someone after

discovering they are transgender is justifiable due to "trans panic."

Transgender people are at least twice as likely to face domestic violence from an intimate partner, though it is difficult to get precise statistics, as trans people often fear that reporting violence against them will "out" them in the community or that it will interfere with their treatment for their gender dysphoria. Worldwide, there have been over 1,500 reported cases of trans people being murdered due to their identity from January 1, 2008, to March 31, 2014, with significant chances of even more unreported cases. Particularly at risk are trans women of color, who make up most of the trans murder victims.

Trans people even discrimination from communities one would expect to support trans equality. In recent years, a group known as Trans Exclusive Radical Feminism (TERF; the adherents are referred to as TERFs) has gained traction. TERFs work to ban trans women from partaking in events and programs designed for women, including trying to ban trans women from certain women's colleges. Additionally, the queer community often ignores trans issues in favor of pushing forward issues that are most pressing for cisgender queer people. Most of the large LGBTQ organizations direct most of their funding and attention to issues that are most pressing to white, cisgender, queer people (such as marriage equality-a valuable and important goal, but arguably less pressing than the fact that in 49 states one has a very reasonable chance of being acquitted of murder if the victim is trans), and do not direct enough attention to the issues of queer people of color and trans people. The marginalized groups that intersect with trans marginalization need to direct more energy toward supporting the trans community, and they need to start bringing trans issues to the forefront of their movements. Next week, we will discuss potential solutions to the issues trans people face, and how to be a good cisgender ally.

Attack on French satirical publication fails to discourage printing

Continued from page 1

Cherif Kouachi, 34. Cherif was convicted in 2008 of helping to recruit soldiers to fight for the Iraqi insurgency and served 18 months in prison. Both brothers had allegedly trained in Yemen and seen action in Syria. Al Qaeda in the Arabian Peninsula (AQAP) has since taken responsibility for the attacks. On the street, following the attack, one of the attackers was heard to have said, "God is great. We have avenged the Prophet Muhammad. We have killed Charlie Hebdo!"

The survivors

Corinne"CoCo"Rey,acartoonist, had picked up her daughter from

daycare. Approached by the armed and hooded men speaking perfect French, they threatened her daughter's life. "They said they wanted to go up to the offices, so I tapped in the code. They shot Wolinski and Cabu. It lasted five minutes. I had taken refuge under a desk."

Sigolène Vinson, a journalist, was spared at gunpoint. "I'm not killing you because you are a woman and we don't kill women, but you have to convert to Islam, read the Quran and wear a veil."

Two other people present at the meeting, Laurent Léger and Renaud's guest Gérard Gaillard, were not harmed. Another Sodexo employee accompanying Boisseau in the lobby was not harmed.

In a radio interview with the Australian Broadcasting Corporation, Caroline Fourest, a former writer with *Charlie Hebdo*, spoke about the attack and ensuring the magazine's work will continue.

"All the time when we met, we tried to make fun and joke about the crazy stupid people who were violent enough to be afraid of a simple cartoon. They can continue to be afraid, because there will be more cartoons.

"We have all decided, the journalists who survived and their ex-colleagues, that we are going to have a meeting tomorrow to publish the next *Charlie Hebdo*, because there is no way, even if they killed 10 of us, that the newspaper won't be out next week.

"[Fear and self-censorship] is what the jihadis want. They know that this is the way. You just have to kill a few people in every country, which is the easiest thing to do in the world. To have an automatic weapon and kill people is really easy. You don't need any talent to do that. You need talent to be a cartoonist. You need talent to be a journalist.

"Those people without any talent killed many talented people today just to create this emotion, this shock, this reaction of panic and hatred.

"Many of my friends who died today were very sweet people, very funny people, and very brave people, because they knew that they had to continue to smile and make others smile while defending freedom of the press. Many of my colleagues were under police protection for many years. Their lives changed completely after the [2005 Mohammed] Cartoon Affair. They were just dealing with that. There is no choice when you are a journalist and you want to be free and you refuse to be silenced just because a violent, stupid guy wants you to be silent. You continue to do what you do, what you know how to do, which is to be free."

loooooove me some men's basketba

Actual Sports Content Editor

REDLANDS, Calif. (Jan. 10, 2015) - The Beavers' big men, senior Andrew Hogue (Arroyo Grande, Calif. / Arroyo Grande) and sophomore Nasser Al-Rayes (Doha, Qatar / American School of Doha), kept up their high level of play as the Caltech men's basketball team took on SCIAC foe the University of Redlands on Saturday afternoon.

"We received tremendous post play today and that kept us close for a majority of the game," Head Coach Oliver Eslinger said. "Then we hit some threes too, so even though they beat us on the boards and worked around our defense, we were able to stay competitive."

The Beavers tied a season high with nine three-pointers but an eight-rebound deficit and double-digit free throw disadvantage proved their undoing, as Redlands improved to 4-8 overall and 1-2 in the SCIAC, while Caltech is now 1-11 (0-3).

Fired up to defend their home court, the Bulldogs notched the first eight points of the game as Caltech missed four consecutive three-pointers out of the gate. Eslinger called a timeout to settle the team and it worked, as the Beavers then scored on each of their next five possessions to pull within one point at 10-9 with 13:45 on the clock.

Three minutes later, junior Kc Emezie (Waxhaw, N.C. / Marvin Ridge) drilled a three-pointer to tie things up at 14-14, but Redlands responded with six unanswered points to regain a comfortable edge. Caltech responded immediately, however, with Hogue and sophomore Ricky Galliani (Menlo Park, Calif. / Sacred Heart Prep) knocking down back-to-back treys and the senior hitting a pair of free throws to even the score at 22-22 at the 6:29 mark. Sophomore Lawrence Lee (Hong Kong / Hong Kong International School) hit a big jumper on the next possession to send Caltech ahead with 5:52 on the clock, and the Beavers held the lead for the next four minutes.

Redlands finally scored on consecutive possessions to regain the edge just 1:30 before halftime, but Al-Rayes came up with a huge effort play on the ensuing Beavers possession, fighting to grab an offensive rebound and converting an andone opportunity to tie things up once again at 32-32 with 1:17 remaining in the half. The Bulldogs would hit a single free throw before the break, and Galliani's three-point attempt was off the mark and went out of bounds, leaving Redlands up one at the half.

The Bulldogs started the second half much the same as the first, scoring six straight points to go ahead by seven less than three minutes into play. Another six unanswered points made it a double-digit margin, and although Al-Rayes cut it to single digits, the Bulldogs responded with yet another eight straight points to surge ahead. Despite senior Bryan Joel (Bethesda, Md. / Walt Whitman) getting hot down the stretch, hitting three of his four total three-pointers within a three-minute span, the Beavers would not come any closer.

Caltech was able to celebrate a pair of season firsts, however, as junior Robert Anderson (Orono, Minn. / Orono) and freshman David Kawashima (Studio City, Calif. / North Hollywood) scored their first points of the year in the final 42 seconds.

Joel led the Beavers with 12 points, all coming on three-pointers as he went 4-for-9 from long range. Al-Rayes added 11 points on 5-of-7 shooting and just missed the double-double with nine rebounds while also blocking four shots. Hogue recorded his typical all-around line of 10 points (2of-2 beyond the arc), five rebounds, three assists and one steal. Kawashima once again impressed in his limited time on the court, adding one rebound, one assist and a steal to his two points in just two minutes.

"I really love what our freshmen are doing," Eslinger said. "They are getting better every day in practice and playing well every time they step onto the court. Nasser, Lawrence and Nick made their presences felt down low too, and Joel really came alive from deep toward the end."



Lawrence Lee gingerly moves his opponent out of the way so that he can gaze upon his teammate Nasser Al-Rayes. -http://gocaltech.com

Luke Lango #3 raises the ball up to be praised because

ball is the only way of life.

-http://gocaltech.com



Two members of the opposing team fight to high-five KCEmezie. If only we could all be so lucky as to high-five KC. -http://gocaltech.com

Diving into an exciting season

GOCALTECH.COM **Actual Sports Content** Editor

POMONA, Calif. (Jan. 10, 2015) - Sophomore Zofii Kaczmarek (New York, N.Y. / Stuyvesant) led the Caltech women's swimming and diving team with a second-place finish on both the 1-meter and 3-meter diving boards in a SCIACopening tri-meet with Pomona-Pitzer Colleges and the University of La Verne.

The Beavers finished with 27 points against La Verne (27-234) and 28 against Pomona-Pitzer (28-221).

Sophomore Kate Evans (Suwanee, Ga. / Lambert) scored Caltech's first point in the 200 Free, and junior Alexandra Ilic (Austin, Texas / Westlake) added to the tally in the 100 Back. Junior Grace Lee (Artesia, Calif. / Gretchen Whitney) also picked up a point in the 50 Free, coming within a second of her personal best, while Kaczmarek beat out both divers from the University of La Verne on the 1-meter to earn top marks in



-http://gocaltech.com

that matchup, with freshman Robin Brown adding three more in the Pomona-Pitzer matchup and two against La Verne on the 1-meter board.

Ilic placed 10th in the 16-swimmer 100 Free field to score another point in each meet and rounded out the Beavers' swimming lineup with another point in the 500 Free. Kaczmarek swept the 3-meter board points as the only competitor in the Pomona-Pitzer matchup and finished sandwiched between the La Verne divers to add four more there.

Why is the women's article so short?

GOCALTECH.COM **Actual Sports Content** Editor

REDLANDS, Calif. (Jan. 10, 2015) - Junior Stephanie Wong (Palos Verdes Estates, Calif. Palos Verdes Peninsula) hit a seasonhigh four three-pointers in a 15-point effort as the Caltech women's basketball team dropped a SCIAC matchup at the University of Redlands, 100-54, on Saturday afternoon.

The Bulldogs stormed out to the lead in the first half and never looked back, shooting a whopping 60

percent from the field and winning the battle on the boards, 52-19, to improve to 5-8 overall and even their SCIAC mark at 2-2, while the Beavers drop to 0-14 (0-5).

Wong and sophomore Kate Lewis (San Antonio, Texas / Ronald Reagan) kept the Beavers close early, scoring all nine of Caltech's points in the opening five minutes, but Redlands soon took a commanding lead and increased it all throughout the game to the final margin of 46.



Stephanie Wong is bae.

-http://gocaltech.com

Lewis led Caltech with 18 points, four rebounds and three steals, while Wong's 15 points were fueled by her 4-for-8 mark from beyond the arc. Senior Bridget Connor (Albuquerque, N.M. / Albuquerque Acad.) kept her hot streak going with 10 points while junior Ann Chen (Thousand Oaks, Calif. / Westlake) and sophomore Michelle Wong (Palos Verdes Estates, Calif. / Palos Verdes Peninsula) each dished out three

ASCIT Minutes

ASCIT Board of Directors Meeting

Minutes for 9 January 2015. Taken by Sean McKenna.

Officers Present: Cat Jamshidi, Nima Badizadegan, Connor Rosen, Annie Chen, Sean McKenna

Guests: Margaret Lee, Kai Chang, Chris Dosen

Call to Order: 8:07

President's Report (Cat):

- MHF Proposals have been approved for the ASCIT ping pong table and the speaker/projector/screen. Students can reserve the equipment through the interim Director of Operations (Sean)
- UASH meeting had the first meeting under the new eligibility requirements. The new requirements are non-negotiable and apply to all students as of fall term 2014, so students need to be mindful about their eligibility.

Officer's Reports:

• V.P. of Academic Affairs (ARC Chair: Nima):

 Student Faculty Conference is happening on February 12th. The sessions will occur from 10am-noon, 1:30pm-4:30pm. Final topics selection for the morning session: dealing with alternative teaching methods, improving academic writing (without increasing the humanities requirement).

• V.P. of Non-Academic Affairs (IHC Chair: Connor):

- House endowments have been sorted out with the MOSH. They will pay
 out annually with no maximum or minimum, directly into house funds.
 This means IHC is accounting for the money for record-keeping
 purposes
- Analysis of rotation is happening. Freshen seemed to like end of rotation "free" dinners. IHC is also checking how satisfaction with the house system relates to experience during rotation and checking how the house system affects students' academic experience during their term.
- Feedback on the search for a new undergraduate dean can be directed to Connor or Cat until a formal committee is selected.

• Director of Operations (Connie):

 SFL maker space proposal has been written, with sponsorship of library staff, IHC, and several clubs, for 3D printers, 3D scanners, and poster printer. It will be submitted to MHF. ASCIT approved sponsoring the proposal as well by a vote of 4-0-0.

• Treasurer (Patrick):

Absent

Social Director (Annie):

- Concerts, theme parks, and food festivals are the most requested social events from Annie's survey.
- A former ASCIT President was wondering if students would want to go to an alumni/student concert on Alumni Weekend.
- Battle of the Bands with was also suggested by a staff member (a more formal open mic night with judges), and this would likely occur around Memorial Day or in conjunction with BFP.
- Annie is looking into planning a Magic Mountain trip with ticket subsidies and a food festival with transportation subsidies.
- Caltech/Harvey Mudd party is being planned to be held at Harvey Mudd. Date TBD.
- Be a Kid Again is going to happen this term, around the end of February.
- $\circ \quad \text{ASCIT Formal will be in April.}$

• Secretary (Sean):

 $\circ\quad$ February 17th will be elections for BOC and CRC off-campus reps.

If anyone has any questions or concerns about a section of the minutes please email the appropriate officer. We are happy to answer any questions. The next meeting will take place on January 14th at 11pm (note special time) in SAC 15.

Meeting Adjourned: 9:00

REMINDER FROM THE COUNSELING CENTER:

Meditation Mob (drop-in mindfulness meditation group)

meets every Tuesday Bottom floor of Winnett from 12:00-12:50 pm

Caltech Jazz Band Announces Performance

The Caltech Jazz Band, directed by Barb Catlin, presents its Guest Artist Concert on Saturday, January 31st at 8:00 pm in Beckman Auditorium.

Featured guest artist is Los Angeles native, Pete Christlieb, who is regarded as one of the true living legends of the tenor saxophone. His identifiable sound has been featured on iconic recordings from Natalie Cole's "Unforgettable" and Steely Dan's "Deacon Blues," to his years with Doc Severinson's Band on The Tonight Show with Johnny Carson.

Admission is \$10 for the general public and \$5 for Caltech staff, students and faculty.

For more information, please visit bands.caltech.edu or call (626) 395-3295.

CALTECH THEATER offers several chances to branch out and take chances, have fun and expand your social network this year!

WANTED: Actors, singers, musicians, technical personnel, and designers for new, original Caltech musical *Alice Through the Wormhole*! This musical is currently in the development phase with a world premiere run February 20-March 1, 2015!

If you are interested in any facet of production, including script development, contact Brian Brophy directly (brophy@caltech.edu).

Caltech Public Events Hiring Ushers

Flexible hours.

No experience needed.

Outgoing Personality.

Pay Rate:

\$15 per hour

Caltech Students only!!

Contact: Adam Jacobo 626.395.5907 ajacobo@caltech.edu

The California Tech

Editors-in-Chief Monica Enlow

Liz Lawler Neera Shah Nehaly Shah

Advisor Richard Kipling

Contributing Writers Brad Chattergoon

Hannalore Gerling-Dunsmore Crystal Liang Katherine Guo Casey Handmer Nailen Matschke

Circulation Manager Kit Chinetti

Caltech 40-58, Pasadena, CA 91125 Contact **tech@caltech.edu**

The Tech is published weekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors and advertisers.

Letters and submissions are welcome; e-mail submissions to tech@caltech.edu as plain-text attachments, including the author's name, by Friday of the week before publication. The Tech does accept anonymous contributions under special circumstances. The editors reserve the right to edit and abridge all submissions for any reason. All written work remains property of its author.

The advertising deadline is 5 PM Friday; all advertising should be submitted electronically or as camera-ready art, but *The Tech* can also do simple typesetting and arrangement. All advertising inquiries should be directed to the business manager at tech@caltech.edu. For subscription information, please send mail to "Subscriptions."

Brad/Chad Business **Tutorial:**

New Year, New Column

Contributing Writer

Hey, Techers. Hope the first week went well and that those of you who went to ski trip this past weekend had fun. I'd be happy to hear some stories especially since being the only senior that's overloading this term (seriously, I asked the registrar) has basically removed any chance I have of enjoying a weekend.

You may have noticed a new title for the article this week. That's right, I've decided to conclude Get Fit with Brad/Chad on the grounds that I've discussed general fitness as far as I can in a public space; the remaining discussion is at an individual level. So why a business column? You may or may not know that I'm the Business and Economic Management Student Faculty Conference (BEM SFC) committee chair this year, and one of the things that I thought students would benefit from is an introductory class in business fundamentals and concepts. While I am in discussion with Professor Jaksa Cvitanic, the BEM option rep, about such a class and while I will be sending out a survey regarding the BEM option in general, I thought that this would be a useful platform to offer introductory information in lieu of a course.

As this is the first article, I will be giving a broad overview of subfields in the area of business, including a brief description of each so that there is some context for skills, applications, and knowledge corresponding to each subfield.

Strategy: There are many aspects to strategy, but strategy generally involves making decisions about the business, firm, or corporation at a very high level. Here are a few questions that may come up that require decision making in strategy: Where should we locate operations (operations can be loosely thought of as processes required for our business to function)? Do we outsource or do in-house manufacturing? Which market (a classification of

consumers which can be considered in various ways, including geography or income level) should we target? Would it be beneficial to acquire or merge with a competitor (another firm or business who has a similar product as us)? Knowledge of strategy is essential in executive roles like CEO or CTO, and one of the fundamental questions it is used to answer is "What would be best for our shareholders?"

Marketing: Marketing can be thought of as strategy but for a product, and it is usually closely related to strategy itself. It is important to note

that marketing != advertising. Advertising is a tool used in marketing to achieve the goals of the marketing strategy, much like computer science is not coding in itself but coding is essential to solving problems in computer science. Some questions require marketing expertise: How do we best raise awareness of our product among potential consumers? What properties (price, design, etc.) should our product have to appeal to our target market? How do we position ourselves in the market to differentiate ourselves from our competitors? What is the best way to sell our products to our target consumers?

Finance: Personally I have found that the word finance can be thrown around a lot without giving any particular description of what the field actually entails beyond stocks. Finance is a broad area, although the various aspects of it can usually be tied together as "aimed at creating returns on capital." Finance can refer to any of the following (though this is not an exhaustive list): trading on a stock exchange (buy a stock, bond, or option-I will define these later-and then try to sell it at an opportune time to make a profit), venture capital investments (investing in startups with the hope of a return on the investment as the startup becomes more valuable), private equity (similar to venture capital but for established companies). Positions in the field are quite varied as well and can range from quantitative roles like model design to management roles like convincing people to invest in

I will be exploring these areas for the remainder of the term. If you're thinking about business as a major, career, or just want to be more familiar with it, tune in weekly to learn the jargon and ideas behind the execution of business

-Brad/Chad

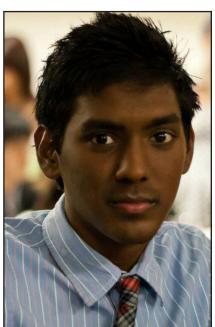


Photo Courtesy of Brad Chattergoon

Crossword 14 18 19 24 25 27 26 29 30 32 33 36 39 41 42 44 58 60 65 63 68 69

-puzzlechoice.com

A -	-		
7.0	т	SS	

1. Hen-peck

70

- 4. Destiny
- 8. Dainty
- 12. Exclusive 13. Esurient
- 14. Communication
- medium
- 16. Leonine animal 17. Hoop
- 18. Harvest
- 19. Livid
- 21. Matured
- 23. Merchandising agreement
- 24. Beverage
- 25. Fiend
- 27. Wonderment
- 29. Young kangaroo
- 30. Consumed 31. Pair
- 34. Acquiescence
- 37. Seize
- 38. Outer part of a wheel
- 39. A sudden impact
- 40. Pouch
- 41. The present location
- 42. Beer
- 43. Musical work

- 45. Fractured
- 47. Pole
- 48. Distilled from
- fermented molasses
- 49. Amphibian
- 50. Female swan
- 51. Crack in a lip
- 52. Consume
- 55. Rodents
- 58. Period of time
- 60. At that place
- 62. Repent 64. A small piece of
- anything
- 66. Length by width 67. Team race
- 68. Field sport
- 69. Building containing
- skating surface
- 70. Gender
- 71. High-pitched bark
- 72. Small vegetable

Down

- 1. Dissonance
- 2. Hawaiian greeting
- 3. DNA segment

4. At a great distance 5. Building were birds are

72

- kept 6. Undertone
- 7. Boundary of a surface
- 8. Be nosey
- 9. Lift up
- 10. Notion
- 11. Move about in a
- confused manner
- 12. Spline
- 15. Poem 20. Midday
- 22. Information
- 26. Acquire
- 28. Entanglement
- 29. Hard black form of
- lignite
- 30. Part of a circle
- 31. Long and difficult journey
- 32. Finishing line on a racetrack
- 33. Presage 34. Slightly open
- 35. Musical composition
- one voice or instrument 36. Sledge

- 37. Fuel
- 40. A quantity of money
- 41. Box on a pole for
- carrying bricks
- 43. Metal-bearing
- mineral 44. Inferior in strength or
- significance
- 45. Constrictor
- 46. Ecstatic
- 49. Exhiliration
- 50. Relating to
- punishment
- 51. Small boat
- 52. Strange and frightening
- 53. Walk of life
- 54. Hard durable wood
- 55. Spoil
- 56. Detail
- 57. Carbonated drink
- 59. Catch sight of 61. Stringed instrument
- 63. Oculus
- 65. Sharp explosive
- sound

Sudoku

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

-puzzlechoice.com

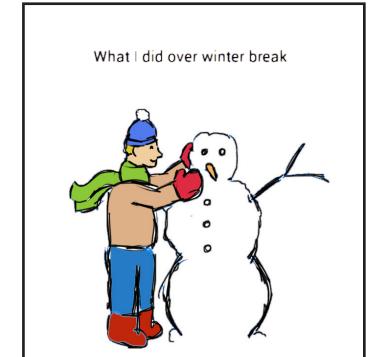
HUMOR

Headache



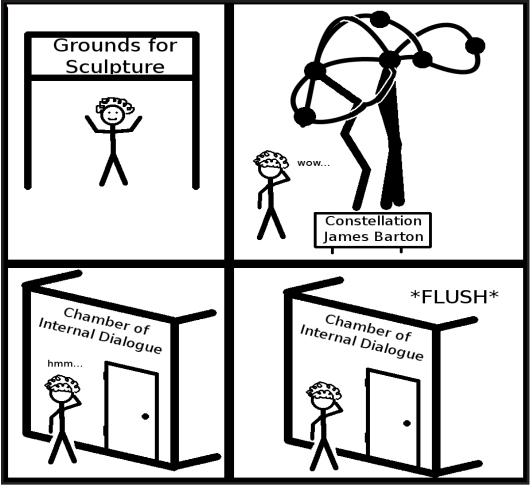
Liz Lawler Acquired Taste

Dr. Z



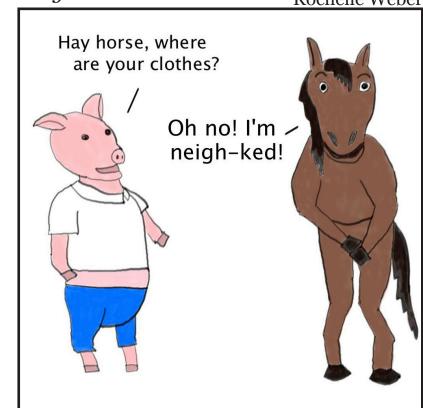
"Chamber of Internal Dialogue"

Georgio Kraggman

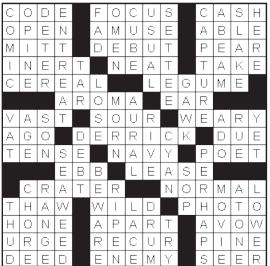


Neigh-kid

Rochelle Weber



Answers to previous crossword



-puzzlechoice.com

Does the House System violate the Honor Code?

James Madison



Answers to previous Sudoku

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

-puzzlechoice.com

The California Tech Caltech 40-58 Pasadena, CA 91125