



## Caltech Space Challenge: Martian moon

**MARCUS WOO**  
Caltech Science Writer

The mission: travel to one of Mars's two moons, explore its surface, collect some rocks, and return to Earth in one piece. Now plan it—in five days.

Dozens of students from Caltech and around the world converged on campus during the last week of March to do just that, compete in the Caltech Space Challenge, which pits two teams against each other to design the best manned space mission.

"It was an intense, challenging, and exciting experience," says Melissa Tanner, a fourth-year graduate student in mechanical engineering at Caltech and member of Team Voyager, which faced off against Team Explorer.

The Space Challenge, which was led by aeronautics graduate students Nick Parziale and Jason Rabinovitch, featured lectures and workshops given by expert rocket scientists from Caltech, the Jet Propulsion Laboratory, and the aerospace industry. The two 16-member teams were even treated to an appearance by astronaut Buzz Aldrin, the second human to have walked on the moon. "I think one of the coolest parts of the experience was having world-class mentors," Tanner says.

Most of the week, however, was filled with hard work and little sleep. The students—a mix of undergraduates and graduates—

had to plan and consider every aspect of long-term space travel, from choosing a propulsion system to keeping the astronauts healthy and fit. (Both teams emphasized the importance of exercise; Team Voyager proposed mandatory Jazzercise classes.)

Landing on a martian moon is considered a stepping-stone toward the ultimate goal of landing a human on Mars and was one of the recommendations that the U.S. Human Space Flight Plans Committee, an independent review commissioned by the White House, made in 2009. A round-trip to one of Mars's moons is much easier than one to Mars, primarily because Mars's gravity is so much stronger than that of its moons. Landing on any planetary body is a difficult and harrowing task—the Curiosity rover famously went through a landing sequence akin to a Rube Goldberg machine and was dubbed the "seven minutes of terror." And, no previous Mars mission—let alone a manned one—has ever landed on the surface and returned to Earth.

The Martian moons—Phobos and Deimos—are like asteroids, with gravity so weak that a spacecraft can approach one of the moons and grab onto its surface. The gravity on Phobos—the larger of the two, yet with a radius of just 11 kilometers (roughly 7 miles)—is so slight that an object dropped from 1 meter above its surface would take more than 18 seconds to "fall."

The Space Challenge's 32 participants came from 21 universities and 11 countries, and were chosen from 175 applicants. They were selected because they brought a particular

skill or expertise to their team. For example, Tanner's research at Caltech is in robotics; in particular, she works on the Axel rover, which is a tethered, two-wheeled robot designed to explore cliffs and other extreme terrain on other planets. Because of that expertise, she helped her team determine how its astronauts would explore the surface of a martian moon.

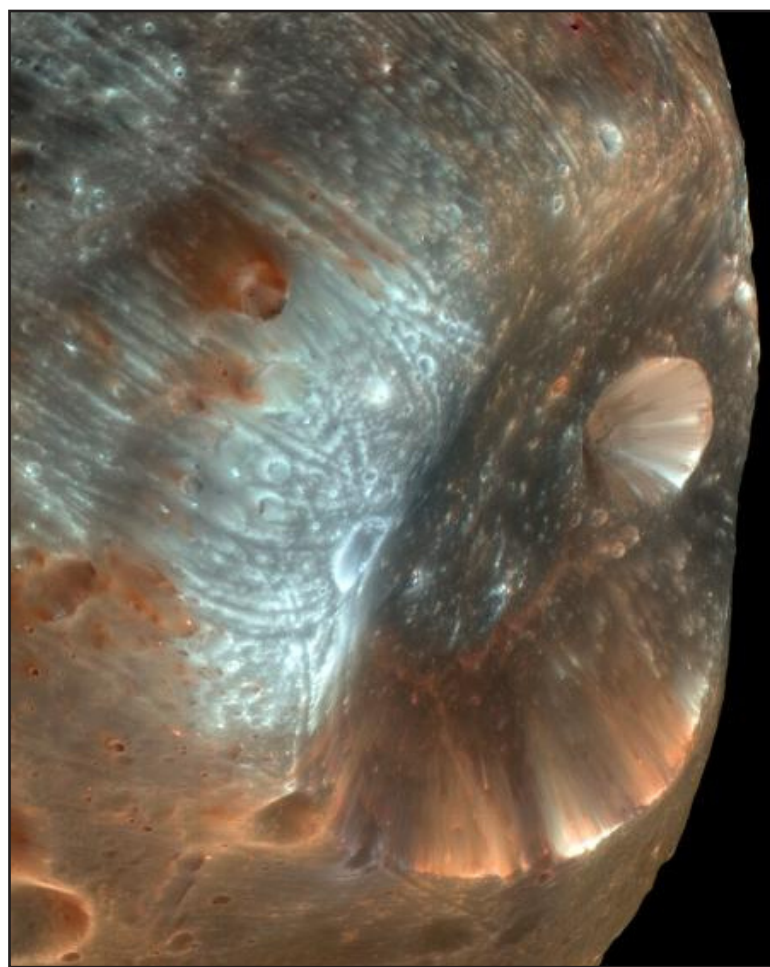
"I think the most rewarding part was meeting all these other people who know so much," says Jay Qi, a first-year mechanical engineering graduate student at Caltech and a member of Team Explorer. "It was really crazy how much I learned just from talking to people."

Although members from the two teams interacted freely—some of the visiting students even roomed with opposing team members—they were careful not to influence each other's designs so as to maintain the spirit of competition, Qi says.

Still, because both teams were faced with the same problems, they often came up with the same solutions. Both teams ended up with similar mission designs, choosing to go to Phobos, for example, because its bigger size offered potentially more interesting scientific discoveries.

And both decided to use a multistage spacecraft assembled in low-Earth orbit that would depart for a six-month trip to Phobos in April 2033.

Furthermore, in each plan, the spacecraft would separate into two parts: one that remained in orbit around Phobos and a second—equipped with robotic claws to cling onto the moon's surface—that would transport two astronauts to the moon. After exploring Phobos for about a month, the astronauts would return home.



- caltech.edu

But there were many differences between the two mission plans. For example, while Team Voyager opted to send three astronauts, the Explorer mission wanted to send four. Team Voyager also included a more detailed robotic precursor mission that would visit both Phobos and Deimos, whereas Team Explorer's manned mission itself included exploring robots.

A group of jurors consisting of experts from Caltech, JPL, and the aerospace industry evaluated the two teams based on their final presentations and reports. The competition was close, said lead juror Joe Parrish, deputy manager of the Mars Program

Formulation Office at JPL. "It was never immediately obvious which team was going to prevail," he said at the closing banquet held at the Athenaeum. "Both teams did an unbelievable job."

The jury went back and forth but finally decided that Team Voyager presented the better proposal, awarding it a bonus to the stipend that each member received to support his or her trip to Pasadena.

Caltech graduate students Prakhar Mehrotra and Jonathan Mihaly came up with the Caltech Space Challenge; the first challenge, held in 2011, was to plan a manned mission to a near-Earth asteroid.

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## News briefs from around the globe

*Helping readers burst out of the Caltech bubble*

**Need to know**

< **100** words about the world this week – topics sorted from good to bad

by *The Tech Eds*

<b>Cruise ship rescue</b>	<b>21</b> people picked up off coast of Florida, US Coastguard interviews [CNN]
<b>Australian wins Masters</b>	<b>32</b> -year-old Adam Scott is first Australian to win tournament [CNN]
<b>Crick's medal sold</b>	<b>\$2</b> million for Crick's Nobel, family to give 20% to Crick Institute [NATURE]
<b>Europe, Google settle</b>	<b>1st</b> time Google agreed to legally binding changes to search results [NYT]
<b>Venezuela recount</b>	<b>1st</b> successor to Chavez won by .66%, opposition skeptical [CNN]
<b>China's growth slows</b>	<b>7.7%</b> annual growth in Jan. to Mar. quarter is lower than expected [BBC]
<b>NASCAR suicide</b>	<b>42</b> -year-old man shoots self at NRA-sponsored race [Huff Post]

## Food with Mannion!

*Do you like eating food?*

*How about free food at nice restaurants?*

*Ever want to tell the world exactly what you think of said food?*

*The Tech will be beginning a new column to chronicle the foodie experiences of new writers every other week... The Catch: They'll be going head-to-head with Tom Mannion who will be reviewing the same restaurant. If you have ever thought you were more of a gourmand than our resident master chef, now's your chance to prove it!*

*Email us for a spot on the list at [tech@caltech.edu](mailto:tech@caltech.edu)*

### The California Tech

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Letters and submissions are welcome; e-mail submissions to [tech@caltech.edu](mailto: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.

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# Write articles for the Tech

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## ASCIT Minutes

Minutes for April 8st, 2013. Taken by Allika Walvekar

Officers present: Diego Caporale, Pushpa Neppala, Mario Zubia, Michelle Tang, Allika Walvekar, Puikei Cheng, Connor Coley

Guests: Connor Rosen, Zach Rivkin, Malvika Verma

Call to Order: 10:03pm

### President's Report (Diego):

Faculty Board Meeting: The FB are creating two new committees. One will be an Honor Code Committee on UG Academics and the other will be a task force to encourage student leadership and accountability. The FB has also endorsed a task force on modifying the Caltech Brand. The FB proposed a Code of Conduct for all staff and faculty members to abide by.

### Officer's Reports:

#### V.P. of Academic Affairs (ARC Chair: Pushpa):

There was an UGSS on Thursday featuring Melany Hunt. ASCIT Teaching awards will be held on Thursday May 23rd. Professor of the Month: Gil Rafael (next week). The next SFL will be on April 17th.

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

Prefrosh weekend is coming up. Please consult the prefrosh weekend guidelines provided by the IHC. <http://ihc.caltech.edu/documents/prefrosh.html>  
Ricketts Repopulation: Priority will be given to Full members. If you have any questions about whether your past disciplinary history will influence your application process please go ask Dean Nye.  
You may read the new Ricketts House charter and apply for housing eligibility at the link below. Important dates can be found at the top of the application. [http://www.housing.caltech.edu/undergrad/forms/lotto/Ricketts\\_Hovse\\_Charter\\_2013.asp](http://www.housing.caltech.edu/undergrad/forms/lotto/Ricketts_Hovse_Charter_2013.asp)

#### Director of Operations (Mario):

Mario located the lights that had gone missing. He is drafting a form that students will have to sign when they rent ASCIT equipment to ensure timely return.

#### Treasurer (Puikei):

Puikei is working on receiving additional funding for ASCIT formal.  
She would like to remind everyone that the Take A Professor to Lunch program is still active. Feel free to email her with questions.

#### Social Director (Michelle):

ASCIT Formal: ASCIT Formal was a success. There was a high turnout and people seemed pleased by the event.  
ASCIT Open Mic Night: Michelle is working on planning ASCIT Open Mic Night. If you would like to participate or help, please contact her.

#### Secretary (Allika):

Updated the Olive Walk Board pictures for IHC Chair and Ricketts president. Put up a new calendar.

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.

Meeting Adjourned: 11:15

# Students and administration losing mutual trust

**ILYA NEPOMNYASHCHIIY**  
Contributing Writer

*This is the short version of a letter that I wrote over the last three weeks and sent to nineteen administrators. You can find the full version at <http://ugcs.caltech.edu/~ilyanep/Letter.pdf>. I would also like to greatly thank the people who read over my letter and provided me with tons of very useful and constructive feedback. This letter would not be nearly as good without their help.*

I am currently a senior attending Caltech, double majoring in computer science and mathematics, and expecting to graduate this spring. I am fairly active in both student and academic life, having taken advantage of many opportunities that Caltech has provided me: I have been on the executive committee for my house, Blacker Hovse; I have been a member of various student clubs and organizations, most notably the Caltech Jazz Bands; I have sat on the biennial Computer Science Student Faculty Conference committee for its last two iterations and chaired it one of those times; and I have participated in two Summer Undergraduate Research Fellowships.

I am writing to you to express a severe disappointment that has been growing in my mind, and likely the minds of most of the undergraduate student body, for the past several years. It is a disappointment that continues to reduce my faith in my alma mater, and it stems from a feeling that the things that attracted me to Caltech in the first place are being slowly chipped away.

I realize that this may sound like a hyperbole, and depending on your position within Caltech, you may hear complaints like this on a regular basis. I want to impress on you the fact that I have thought through this position for the majority of this year, which amounts to nearly six months at the time of my writing this letter. This may seem like a bitter rant written by a student who did not do well at the school. However, those familiar with me should know that my academic record is excellent, and I have succeeded in most of my goals here, both in academics

from the excellent academic environment, is the absolutely unique and unparalleled atmosphere surrounding the boundaries, the administrators in charge should take careful, small, well thought-out steps to correct the situation, and should educate

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I am sure that the administrators in charge of these policies have only the students' and the Institute's best interests at heart. My claim is that they often take measures that are misguided or counterproductive.

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students. I was told, when I applied and again when I was accepted to Caltech, that the administration puts a great degree of trust in its students. I was told that the house system, which many, if not most, alumni cite as one of their favorite parts of Caltech, is mostly autonomous and allowed to function primarily on its own without much administrative micromanagement. I was told that the Honor Code affords great freedoms to students. I was told that at a school as small as Caltech, the administration and professors are generally open to letting students forge their own academic paths without any unnecessarily bureaucratic or annoying safeguards to push through.

Such a school seemed like an excellent choice for my undergraduate education. I always thought that college was supposed to be more about choices made by me, and not by my professors and deans. I always thought that as a trustworthy person, I should start with trust and respect, until I prove that I cannot handle it, rather than the other way around. This is the fundamental spirit of the Honor Code. It does not exist for convenience to get students to act a certain way. It is a code that should bind the *entire* community in acting honorably and considerately toward each other. While these things are still fundamentally true at Caltech (it is hard to shake over eighty years of cultural traditions), I see them becoming less and less so.

the students involved. I see this sort of attitude as having gone completely out the window. Thus, the core of my complaint is that in the three and a half years that I have been a Caltech undergraduate, I have watched the administration's trust in students plummet while uncalled for punishments have been handed out to a much larger extent than in any recent memory. Members of the administration have acted against the spirit of the Honor Code, and often solely in the interests of decreasing legal liability with disregard for any cultural harm done to the Institute. The end result is an environment where the students are treated like children rather than the young adults they deserve to be recognized as.

Students at Caltech spend a lot of time hearing about how much the Institute and the administration care about our mental health. I am pretty sure that I have never felt more down at Caltech than when I felt upset over draconian punishments, annoyed over bureaucratic roadblocks, worried about how much administration really wants to preserve our student culture, and scared that undeserved action could be coming to me or my house next. Add to that the fact that Caltech is likely one of the most stressful schools in the country, based solely on its academics, and the end result is not good overall. Administrative decisions should acknowledge and respect the fact that the students are some of the smartest in the country, avoid placing additional and undue stress on the students, and be cautious to maintain the fact that the students are some of the most creative in the country. Caltech students are exceptional, so they should be treated exceptionally. I am sure that the administrators in charge of these policies have only the students' and the Institute's best interests at heart. My claim is that they often take measures that are misguided or counterproductive.

*In the full version of this letter, I spend most of the body discussing specific examples that support my thesis. In the interests of space, I will briefly list the examples here in bullet point form and highly encourage you to read the full version:*

- The removal of student readers from the admissions process in 2010

- The introduction of area coordinators without student consultation, and the resulting protest in spring 2011 which went relatively unheeded

- The indefinite suspension of a student in fall 2011 for doing something that has never been specified to him, and some troubling guidelines for behavior he was given after being reinstated

- The deans' common abuse, contortion, and bypassing of the CRC, as well as the general creep of policy over the Honor Code

- The absurd bars recently installed on windows in the South Houses

- The discontinuation of the South master key and the deans' calls to pursue serious disciplinary action against anyone found in the tunnels, despite no change in the tunnels or damage caused by students there

- The introduction of the hazing policy, the deans' disdain for anything that is called a tradition, and administrators' refusal to allow us to record one of the town hall meetings despite their promise to us that we would be allowed to do so in fall 2011

- The firing of the Page House waiters and CRC cases brought against Lloyd House seniors who were completely uninvolved with a prank which was not hazing in the first place in fall 2011

- The refusal by administration to move registration to a day different from Ditch Day, and the threats to the senior class about what would happen if any underclassmen felt they were barred from registering that day on Ditch Day 2012

- The orders that security claims to have from the deans to stop any students who are ponding a student for their birthday or duct-taping a senior to a tree during a fake Ditch Day as of this school year

- Freshman academic unit caps, which demonstrate a lack of trust in the students in the academic arena as well

- The recent trend of in-class quizzes

- One of the deans' threats to disband Blacker if he did not find out who was the cause of a fire in the SAC, despite the lack of any evidence that Blacker Hovse was encouraging such behavior or protecting any individuals responsible in summer 2011

- The PNGs of Ricketts' ExComm in fall 2011 over, as far as any students can tell, offensive T-shirts at an event that none of the PNGed members planned and some were asleep for

- The threats to take Ricketts' rotation picks away over some broken glass in their courtyard during summer 2012 unless they handed over individuals to be severely disciplined (possibly even PNGed); in addition, the orders to security and housing to inform the deans of any broken glass in their courtyard, and the assumption

that some broken glass in Blacker's courtyard that was temporarily not cleaned up was evidence that they had lit a television on fire and dropped it from the roof (which was absolutely not the case, as was backed up by the RAs)

- The recent events regarding the disbanding of Ricketts Hovse (and you will not be able to convince me that the measures originally taken do not amount to disbanding a house); the fact that most members of the house still do not know exactly what kind of events triggered the disbanding (and there has certainly been no official statement to that regard, with the deans failing to clear up at first that there were not serious crimes occurring on campus which threatened student safety, and then only doing so to individual students informally and unsatisfactorily); the fact that the narrative made a sudden change from being about specific events to how the house culture needs to change halfway through the process; the fact that the CRC was completely bypassed in the whole process

I do not know what the solution is to this trend of disproportionate punishment, loss of transparency, and distrust of students, but I do know that a good start would be for the administrators who work with students to adopt a new attitude in which they begin with trust and respect for the students, work to communicate better with the student body, and have students involved in decision making again.

I see no reason why Caltech, which takes so much pride in being declared the #1 school in the *Times Higher Education* global ranking, has so much desire to make itself more like other schools. The other schools in that ranking do not have a house system like ours, they do not have a student atmosphere that is as unique as ours, and they do not have an educational system that is like ours. Hopefully my examples above have demonstrated to you that we are slowly losing the best parts of our most unique features.

Even if we became like those other schools, we would still be a great school. We still are a great school. However, when I first arrived at Caltech, we were a magical school, where we were free to be creative, unique and different. We were a school where we could explore the campus, the world, and the universe. We were a school where the students were interested enough in preserving the culture they had fought so hard to build and the education they cared so much about that they were trusted to take an active role in shaping them. Now, we attend a school that will give us a good education, but where creativity, exploration, and autonomy are highly discouraged or banned by various bureaucratic roadblocks and unfounded, flimsily defended worries about safety and legal liability.

*Continued on page 5*

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...we are slowly losing the best parts of our most unique features.

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and in student life. For most of my time here, I sincerely believed that there was no other undergraduate institution in the country that I would rather be attending.

The reason I chose to attend Caltech in the first place, aside

In my mind, the job of the administrators who work with students is to nurture and support such an environment, while protecting the Caltech community. In the case that a misguided student or two overstep their

## Deans Nye, Kiewiet mishandled Ricketts Ex-Comm

EUGENE VINITSKY  
Contributing Writer

Last term I wrote an article on how Dean Nye and Dean Kiewiet had bypassed the CRC in an attempt to take justice into their own hands as though they were a pair of moral vigilantes. After getting feedback on the article, I came to discover something that shocked me. People simply weren't fully aware of what was happening to Ricketts. What I thought would be almost public knowledge was not and so I have resolved to write a series of articles detailing the absurdity of this situation. This week I'd like to tell you the story of the new Ricketts Executive Committee (ex-comm).

When members of the newly elected ex-comm were unjustly removed from their positions last term, Ricketts was faced with the unfortunate need to elect new leadership. Being in dire straits, it seemed to make sense that we elect people who had prior experience dealing with the deans. Despite any assertions that might be made to the contrary, over the past year we have had a remarkably good-natured relationship with the deans. Every event we held was run through them and developed

in coordination with the RLC and the RA. In fact, our rotation was run in such accord with their former vice president of Ricketts and had been intending to run for president. Yet, without ever being

“ You only have to look at the new Ricketts charter, in which we are the only house *required* by its constitution to host diversity events...I take great offense to being singled out as a group of racist reprobates in need of retribution.

wishes that the deans presented our President, Seabass, with one of those singing fish plaques. Our damage bill is thousands of dollars less than it was the year before. We closed the tunnels for Apache. Many of the changes we made were made begrudgingly, but they were made nonetheless. However, as it would turn out, the deans have a very strange notion of reward.

The day before elections rolled around and we awoke to surprising news. Via an email from our RAs, the deans chose to inform us that anyone who had ever been involved with the higher-up positions on ex-comm were not allowed to run for any positions. I am the

accused of wrongdoing, I and the rest of the former ex-comm were declared unfit. Though we were not given an explanation, there are only two possible interpretations of their decision: both are equally infuriating.

The first option is that we were forbidden to run because of guilt by association. Whether we have or have not done anything, being involved with Ricketts is a presumption of guilt. Judging from the recent assault on Ricketts based upon “20 years of evidence,” culpability by association is definitely a central policy of this administration. The other option, unsettling as it is, is that this is

part of a larger attempt to mold the culture of Caltech into one that the deans find morally fitting. Anyone formally involved with Ricketts is, in their eyes, a representative of our reprehensible culture.

The repercussions of the administration playing matchmaker in Ricketts politics go far deeper than the house system itself. The deans have declared themselves to be the moral authority on campus. They feel that they are fit to decide who is worthy of being a leader on campus. They feel that they can declare what is moral and immoral behavior on campus. You only have to look at the new Ricketts charter, in which we are the only house *required* by

its constitution to host diversity events. I have nothing whatsoever against diversity events, but I take great offense to being singled out as a group of racist reprobates in need of retribution. Without ever examining us deeply, they declared that we had a problem and needed diversity training to solve it.

This year, the recipient of the administrations moral fury was Ricketts. This year, the recipients of the dean's moral fury were the former ex-comm and myself. Without *any evidence*, we were declared unfit to be involved with campus leadership. Today it was us. Considering that evidence or actual wrongdoing is irrelevant, why not you next?

## RevComm Announcement

*Nominations and sign-ups for ASCIT President, ASCIT Treasurer, ARC Chair, Director of Operations, and Social Director open at 8:00 AM on Monday, April 15 and will last until 5:00 PM on Friday, April 19.*

*Elections will be held on April 22.*



## INNOWORKS SCIENCE CAMP

We are looking for **undergraduate students** to be **mentors** for a middle school summer camp on campus from August 5-9th. This year, our activities include working with Lego Mindstorm Robot kits.

Interested? Shoot an email to [caltech@innoworks.org](mailto:caltech@innoworks.org)!

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# Students call for understanding administration

Continued from page 3

I feel like the #1 school deserves better than that, and that the #1 school must surely have the minds capable of coming up with a better solution than “cease all problematic activity!”

When I arrived at Caltech, I felt comfortable telling people who were worried about small administrative matters (both academic and non-academic) that it was okay.

They did not need to stress out. People in charge here were very understanding.

When I was a freshman, administrators demonstrated several great feats of understanding and being reasonable.

I wish for a return to that state of things.

I highly recommend that you also take the time to read the letter (found on the Caltech Alumni Facebook page or at <http://signon.org/sign/in-support-of-the-caltech>) written by Chandra Barnett, an alumnus from the class of 2007.

She expresses a similar view, but makes an important point: the students at Caltech are chosen

to be creative, because that is the sort of student that does innovative science.

Therefore, it is highly undesirable to be too heavy-handed in snuffing out any envelope-pushing behavior that is not as easily understood as conforming behavior.

The result of being too heavy-handed is twofold: we send a message to the people who have the potential to be the most creative scientists in the world that it is best to conform if their innocent creativity has even the slightest chance of being repulsive to anyone, and we demoralize the

students at one of the toughest universities in the country. This is a very quick summary of Chandra's brilliant points, and I doubt I could phrase her points as well as she has without directly quoting her, so please do take a look at her full letter.

Several individual instances of students doing something dumb do not make for a trend that shows the system is not working. If anything, switching to a system based on distrust makes matters worse, especially with a student body that has been trained to push the envelope. In my view, the

problematic individuals are the “exception that proves the rule.”

While this particular letter expresses entirely my own opinions on recent events, the overall sentiment is not solely mine. It is the sentiment of several alums, as can be seen by Chandra's letter, and many of my fellow undergraduates.

I know your time is very important, so you have my deepest gratitude for taking the time to read my letter and for giving it some thought. It is refreshing to have my opinions heard, given how often I feel they are ignored.

# Moderate technology use for a new life experience

**NINA BUDAIEVA**  
Contributing Writer

Last weekend, a very unusual thing happened to me: I was going out to downtown LA and I forgot to bring my phone. The reason was perfectly justified. The battery was running low, so I plugged the phone in to charge but when I ran out the door to drive off with my friend, I forgot to unplug it. The minute I got into the car, we realized that we were unsure about directions and since I was the passenger, I automatically reached into my pocket to look them up on my smart little phone. Oops.

I felt a bit lost at first. How were we going to find our way? What if I had to call someone? What if I got an urgent e-mail that I just had to read immediately?

Gradually, I eased into this new state of being and over the next few hours, I grew to thoroughly enjoy it. No one could bug me electronically while I was going to the city with a great friend. We could actually have a conversation and enjoy the drive and each other's company. We were able to entertain ourselves without the help of any virtual information. It turned out that roads have road signs, and although California is notorious for illogical signs, two Techers nevertheless succeeded

in following them to our final destination. We did make an unnecessary loop in the process, but I would attribute that to our inexperience in finding our own directions without a GPS.

During the drive, I caught myself reaching for my phone every few minutes. Each time this happened, I asked myself what I needed my phone for and I never had a real answer. ‘Just to check any incoming information’ was the best I could come up with. Why would I need to do that while having a face-to-face conversation with a real person? This drive made me realize that despite their versatility, gadgets such as smart phones (and GPSs) create dangerous addictions.

Go outside and walk among other people. Walk by a café. Pass the gas station. Go to the grocery store. Everywhere, you will see people hunched over their little smartphone screens, checking for some very important incoming information. If they are desperate for immediate entertainment, they might be playing a phone game.

I am not trying to completely deride high-tech gadgets. They are, indeed, quite useful when you need to quickly look something up online, or find where you are on a map. They have many great and useful features. However, what

boggles me is that these gadgets are only useful as long as they are charged. Once the battery runs out from excessive app use, we are back in the good old age where real-time conversations were held live, and memos were written on pieces of paper. Frankly, when this happens and batteries run out, many are at a loss for what to do!

Pulling your phone out and pretending to be interested by something on the screen has become a default social behavior when unsure of how to act around people in your immediate vicinity.

You do not want to look asocial and simply not talk, so you enter the world of your little screen and immediately you have an excuse for not being able to interact with living people.

I have caught myself doing this several times. When a conversation got uncomfortable or hard to navigate, I pulled my phone out and checked my e-mail which I had automatically checked 30 seconds earlier. First of all, I realize that this is simply rude and disrespectful. Second, most likely nothing so urgent is going to happen in 30 seconds that you cannot find out about a little bit later. Finally, perhaps if we practice actually

dealing with situations instead of escaping into our gadgets, we would find that there are fewer situations that we want to escape from.

Even while writing this article, I have already managed to check my e-mail about ten times, even

messages and advice. Just judging from Facebook, one would think that these are very outward people who must be all over the campus. However, many of these turn out to be very quiet and introverted when you finally meet them in person after a year of not knowing who they are. Strange, right?

Really, I could not care less if you just ate a tuna sandwich with the most delicious side salad ever. Why post this? Is it really that exciting? Do you really need people to know that you just ate that sandwich, or that you just had the absolutely most amazing caramel latte ever, or that



- www.hindustantimes.com

though I know that no e-mails get sent at 10am on a Sunday at Caltech. I know I am not the only one falling victim to this disease. Facebook is a very good indicator of just how much this disease has spread. There are plenty of the mysterious characters who seem like the rulers of the world online, constantly posting status updates and very long statements of extreme opinion. They also comment on other people's posts with personal

today you are in a such-and-such mood? Dear Facebook poster, what will you do when something big actually happens?

One of the most perturbing events will probably be when internet mysteriously stops working. So many people's worlds will turn up-side down and then even the casual Facebook posters will want to post about that. But how will they announce the news without Internet?

# Trance engages and challenges viewers' minds

**MALVIKA VERMA**  
Contributing Writer

When I first saw that Arclight Cinemas was going to show Danny Boyle's new movie, *Trance*, (opened in Los Angeles and New York last week), I told a few friends and organized a movie night. The plan was to walk there – a good 30-minute exercise before sitting in comfortable chairs and eating \$1 popcorn (thanks to my membership!). So, the night before the planned outing, I was trying to buy tickets, but could not do so. It turns out the movie was never showing at Arclight in Pasadena. We had to go to Arclight Hollywood to see it! I freaked out, since there were 14 people who wanted to go, and only one car. And thus, I would like to issue a public apology to all

those we could not take to Arclight Hollywood. And some advice for everyone – just because a movie is showing at Arclight Hollywood, it is not safe to assume that it is also showing at the Arclight theater in Pasadena!

Of course, I had to go, being an obsessed and legit film critic. I wanted to feel special for seeing the movie before

most people in this country would. We arrived in the packed theater at Arclight Hollywood just in time to catch trailers of *Oblivion* and *Mud* before the feature film.



- www.beyondhollywood.com

*Trance* revolves around Simon (James McAvoy), a fine-art auctioneer, executing a failed art heist from his own auction house. During the

daytime robbery of the famous Goya piece, Simon suffers a blow to his head and develops amnesia. He can no longer remember where he put the painting, and his gang members, especially Franck (Vincent Cassel), pressure him to recall the location. They eventually seek the help of a hypnotherapist Elizabeth (Rosario Dawson). She uses her hypnotherapy methods to dive into Simon's mind and extract his memory of where he put the painting. There are many twists and turns, flashbacks, explosions, blood, and sex. Danny Boyle throws a lot at the audience in this dynamic 101-minute film.

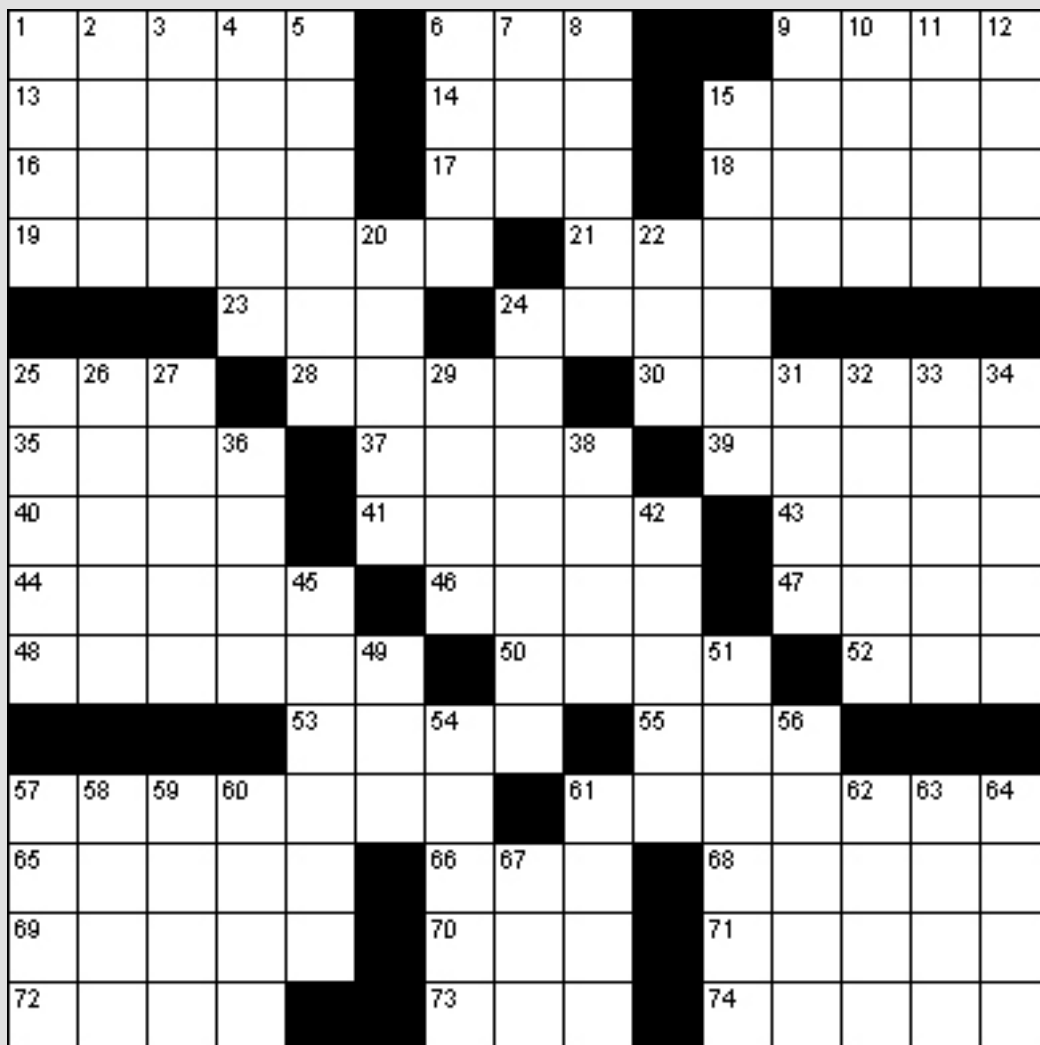
The film might remind you of *Spellbound*, Hitchcock's thriller with Gregory Peck and Ingrid Bergman, but most likely you will compare it to *Inception*. I enjoyed

*Trance* and will have to watch it multiple times to understand it because I honestly do not get it yet. It is a crisply made artistic film, and definitely satisfies the requirements of film noir, with the femme fatale Elizabeth.

The highlight of our night was actually getting to be a part of a Q and A with actress Rosario Dawson. She answered personal questions (by the way, did you know she is dating Danny Boyle?) as well as some about the film. It was amusing when she recalled watching *Trance* with her family and how awkward it was when they saw her nude scenes.

If you would like to find out about Q and A's with Hollywood directors/stars, become an Arclight member—it is free! Also, please take me with you.

# Today's Puzzle: Crossword



## Across

1. Traverse
6. Demented
9. Lofty level
13. Unit of apothecary weight
14. Historic period
15. Spooky
16. Movie accolade
17. Batch
18. Callow
19. Rising air current
21. Passed by
23. Watch chain
24. Dainty
25. Appropriate
28. Type of star
30. Pour out
35. Trickle
37. Small rowboat
39. Beer
40. Entice
41. Arm joint
43. Uncommon
44. Paragon
46. Journey
47. Prima donna
48. Pandemonium
50. Golfclub
52. Fish trap
53. Type of duck

## Down

55. Acme
57. Move downward
61. Maybe
65. Characteristic of birds
66. Country, initially
68. Cinematic production
69. Location of something surrounded
70. Garland
71. Repent
72. Supplication
73. Bronze
74. Comparatively less

## Down

1. Water hen
2. Hurry
3. One time only
4. Neckwear
5. Religious discourse
6. Plaza
7. In the past
8. Discourage
9. Pile
10. Part of the eye
11. Donate
12. Pay close attention to
15. Tooth coating
20. Dwelling
22. Cover
24. Cook briefly
25. Perform without preparation
26. Person excessively concerned with propriety
27. Fatigued
29. Potentially shocking?
31. Part of a deck
32. Once more
33. Mettle
34. Choice morsel
36. Toll
38. Belonging to you
42. Penned
45. Not presently active
49. Males, collectively
51. Conventional
54. Fully grown
56. Snapshot
57. Slightly wet
58. Iniquity
59. Facet
60. A house, in Italy
61. There's no gain without it, so they say
62. Affirm
63. Coniferous tree
64. Oracle
67. Expanse of water

[<http://www.puzzlechoice.com/>]

*Caltech Public Events is now hiring student ushers.  
\$15 per hour to work concerts, performances, lectures,  
films and parties.*

*No experience needed, no hard labor, flexible  
schedules.*

*\*Requirements: Caltech student, Positive attitude,  
Friendly personality*

*To apply email Adam Jacobo ([ajacobo@caltech.edu](mailto:ajacobo@caltech.edu))  
or call (626)395-5907*

*For info on Caltech Public Events visit: [www.caltech.edu/content/public-events](http://www.caltech.edu/content/public-events)*

## New Chapman team trounces 'Tech baseball

**GOCALTECH.COM**  
The Real Sports Editor

Chapman completed a three-game sweep of Caltech on Saturday as they won both games of a doubleheader.

**Game One:** Chapman (V), 15-4

The Panthers put themselves in good position as they jumped out to a 7-0 lead after two innings.

Caltech got a run back in the third inning when Jerome Skelly doubled home Brian Penserini with two outs.

The score remained 7-1 until the fifth inning when Chapman scored three runs on four hits while taking advantage of a Beavers error. The Panthers all but sealed the game with a five-run sixth inning. The visitors strung together five hits and used two Caltech errors to their advantage as they increased their lead to 15-1.

Caltech scored three runs in the sixth. During the inning Derek

Kearney, Albie Lavin and Mason Freedman each crossed the plate.

Skelly went 2-for-3 with an RBI while Laving pitched in a 2-for-4 effort with an RBI and run scored. Penserini hit his fourth triple of the season which ties him for the fourth in school history for three-baggers in a season.

Chapman's Connor Battaglia went 4-for-5 with four RBI's and two run scored.

**Game Two:** Chapman (V), 13-0

The visitors did a lot of damage in the opening inning as they sent 11 guys to plate during a six-run outburst to start the game.

Neither team scored again until the fourth inning when Chapman tacked on three more runs. The Panthers rounded out their scoring with two runs each in the sixth and seventh innings respectively.

Chapman starting pitcher Matt Smith went 6.0 innings and struck out eight while allowing four hits to earn the win.



The Caltech baseball team circles up to discuss their favorite flavors of Big League Chew.

- gocaltech.com

## Upcoming sports events

*April 17: Women's Water Polo vs. Redlands*

*April 19: Women's Tennis vs. Chapman*

*Men's Tennis at Chapman*

*Men's Baseball vs. CMS*

*April 20: Baseball vs. CMS (11 AM)*

*Baseball vs. CMS (2:30 PM)*

## Kitto racks up more wins, but 'Tech falls to Redlands women

**GOCALTECH.COM**  
The Real Sports Editor

The Redlands women's tennis team posted an 8-1 win over Caltech in SCIAC match-up at the Braun Tennis Courts.

The Bulldogs came into the match as the nation's ninth ranked team.

Redlands top two doubles team came into the contest ranked in the region.

Caera Sumida and Jessica Ly, the region's top team, posted an 8-1 win over 10th ranked Monica Li and Rebekah Kitto.

The eighth ranked duo of Julia Pollak and Natalie Etchegaray topped Jessica Yu and Michelle Lee 8-0.

The visitors completed the doubles sweep with an 8-2 victory at No. 3 doubles.

The top singles match saw Kitto continue her undefeated season with a 6-0, 6-4 win over Ly.

The junior is now 16-0 after topping the region's fifth ranked

player. A closely contested match at the No. 2 singles spot saw

Etchegaray win a three-setter 6-3, 3-6, 10-8 over Li.

The Bulldogs dropped seven total games.



Jessica Yeung ditches the racket and puffs up to blow the tennis ball across the court. I literally saw this happen.

- gocaltech.com

*Acquired Taste**by Dr. Z**Prefrosh weekend PSA**by Chris Perez*

Techers Against Prefrosh Abuse would like to remind all Techers this April of the dangers of prefroshing and interacting with prefrosh addicts.

Prefrosh is a powerful psychoactive substance. The recreational use of prefrosh is called "prefroshing" and it can be obtained from dealers which are commonly referred to as "admissions counselors." The effects of prefroshing include:

- Euphoria, allowing the user to falsely believe that Caltech is a wonderful place.
- Increased energy.
- An inflated sense of self-importance and popularity.
- Paranoia, particularly an irrational fear of saying certain taboo phrases.

Prefrosh addicts are most dangerous during April, when the dealers bring in large quantities of raw, uncorrupted prefrosh. Avoid addicts on a prefrosh binge at all costs, as they are known to be extremely annoying. If you suspect one of your friends of being a prefrosh addict, please bring your concerns to your UCC.

*For more photos,  
videos, and archives  
of previous issues,  
check out the Tech  
website!*

[tech.caltech.edu](http://tech.caltech.edu)

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