

## Caltech breaks record for network data transfer

**ALLISON BENTER**  
Caltech Science Writer

Physicists led by Caltech have smashed yet another series of records for data-transfer speed. The international team of high-energy physicists, computer scientists, and network engineers reached a transfer rate of 339 gigabits per second (Gbps)—equivalent to moving four million gigabytes (or one million full length movies) per day, nearly doubling last year's record. The team also reached a new record for a two-way transfer on a single link by sending data at 187 Gbps between Victoria, Canada, and Salt Lake City.

The achievements, the researchers say, pave the way for the next level of data-intensive science—in fields such as high-energy physics, astrophysics, genomics, meteorology, and global climate tracking. For example, last summer's discovery at the Large Hadron Collider (LHC) in Geneva of a new particle that may be the long-sought Higgs boson was made possible by a global network of computational and data-storage facilities that transferred more than 100 petabytes (100 million gigabytes) of data in the past year alone. As the LHC continues to slam protons together at higher rates and with more energy, the experiments will produce an even larger flood of data—reaching the exabyte range (a billion gigabytes).

The researchers, led by Caltech, the University of Victoria, and the University of Michigan, together



today.caltech.edu

with Brookhaven National Lab, Vanderbilt University, and other partners, demonstrated their achievement at the SuperComputing 2012 (SC12) conference, November 12–16 in Salt Lake City. They used wide-area network circuits connecting Caltech, the University of Victoria Computing Center in British Columbia, the University

of Michigan, and the Salt Palace Convention Center in Utah. While setting the records, they also demonstrated other state-of-the-art methods such as software-defined intercontinental networks and direct interconnections between computer memories over the network between Pasadena and Salt Lake City. “By sharing our methods and tools with scientists in many fields, we aim to further enable the next round of scientific

discoveries, taking full advantage of 100-Gbps networks now, and higher-speed networks in the near future,” says Harvey Newman, professor of physics at Caltech and the leader of the team. “In particular, we hope that these developments will afford physicists and students throughout the world the opportunity to participate directly in the LHC's next round of discoveries as they emerge.” As the demand for “Big Data” continues

to grow exponentially—both in major science projects and in the world at large—the team says they look forward to next year's round of tests using network and data-storage technologies that are just beginning to emerge.

Armed with these new technologies and methods, the Caltech team estimates that they may reach 1 terabit-per-second (a thousand gbps) data transfers over long-range networks by next fall.

### In this issue

**NEWS**  
Review last week's  
ASCIT Minutes **2**

**OPINION**  
Pro-BoC Bylaw opinions **4**

**FEATURE**  
Interview with Casandra Horii **5**

**SPORTS**  
Women's Bball loses  
openers **7**

## 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>T-giving sales improve</b>   | <b>13%</b> increase in total spending over T-giving weekend from 2011 [WP]           |
| <b>Andrew WK ambassador</b>     | <b>33</b> -year-old rocker named cultural ambassador to Middle East [HuffPost]       |
| <b>Gangnam Style on top</b>     | <b>805</b> million Youtube views lets Psy overtake Bieber's "Baby" [FoxNews]         |
| <b>Rebels take air bases</b>    | <b>3</b> military installations overtaken by Syrian rebels, seized weapons [NYT]     |
| <b>Teachers cheat on test</b>   | <b>3</b> Southern states paid impersonator to take teaching quals test [FoxNews]     |
| <b>Boxer dies from gun shot</b> | <b>50</b> -year-old Hector Camacho shot on Tuesday, pulled off life support [CNN]    |
| <b>Protests in Egypt</b>        | <b>15</b> -year-old killed after riots following vote to give pres more powers [BBC] |

## 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

Caltech 40-58, Pasadena, CA 91125  
advertising e-mail: [business@caltech.edu](mailto:business@caltech.edu)  
editorial e-mail: [tech@caltech.edu](mailto:tech@caltech.edu)

*Editors-in-Chief*  
Jonathan Schor  
Stanford Schor

*News Editor*  
Sandhya Chandrasekaran

*Sports Editor*  
Amol Kamat

*Staff*  
Moriah Bischann  
Nina Budaeva  
Casey Handmer  
Yang Hu  
Jonathan Ikpeazu  
Rebecca Lawler  
Mary Nguyen  
Eugene Vinitzky  
Caroline Yu  
Chris Zheng

*Circulation Manager*  
Michael Paluchniak

*Advisor*  
Richard Kipling

*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](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.

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 [business@caltech.edu](mailto:business@caltech.edu). For subscription information, please send mail to "Subscriptions."

## Write articles for the Tech

**get paid up to \$30**

## ASCIT Minutes

Minutes for November 15, 2012. Taken by Allika Walvekar

Officers present: Diego Caporale, Christian Rivas, Pushpa Neppala, Mario Zubia, Michelle Tang, Allika Walvekar, Puikui Cheng

Officers Absent:

Call to Order: 8:37 pm

**President's Report (Diego):** Ray Gonzales conducted a survey training class. He is a great resource if you need any future help on writing an unbiased survey.

The Caltech Writing Center is being revamped and moved to CSS.

The BoD had a meeting to revise the BoC bylaws that were released. A revised version with minor changes will be sent out to the community on Friday. A vote will be held the Monday or Tuesday after Thanksgiving. RA hiring will begin soon and the administrators would like to have more student involvement. Event registration for next year will be revamped and might include more training.

Officer's Reports:

**V.P. of Academic Affairs (ARC Chair: Pushpa):** A Tech bulletin was published this week about the SFC. Connor put together an UG research committee with SFP involvement for a morning presentation at the SFC. Pushpa is going to try to organize skype focus groups with 2-3 alums per option for the SFC. The ARC is currently choosing a Professor of the Month for November. Drop day is 11/21/12 and winter term course registration is 11/26/12.

**V.P. of Non-Academic Affairs (IHC Chair: Christian):** Big I construction is wrapping up. Financial concerns with funding have been clarified with the presidents.

**Director of Operations (Mario):** Club funding announcements will occur in the next few days as the Steering Committee met on Monday. Mario will be assigning club storage lockers for clubs that asked for them. The yearbook has been sent to the publishers.

**Treasurer (Puikui):** Sent out emails to the reps and the treasurers about Big I.

**Social Director (Michelle):** All the houses passed their second safety check. Registration online will be shut off Friday at noon. Olive Harvest is tomorrow.

**Secretary (Allika):** Looked into printing ASCIT Thank You Card but professional companies are too expensive.

Allika will be designing a Thank You Card and printing it on cardstock.

Meeting Adjourned: 9:31



# Student Voices: *In favor of the BoC bylaw changes*

**AVIN ANDRADE**  
Board of Control Chair

A few months ago, I called a defendant in to a preliminary hearing for a case against her. One of her professors had accused her of plagiarism on one of her assignments. In reality, she had forgotten to cite one of her sources when using a direct quote from it. The professor had already confronted her about the violation, so she knew why I had called her in. By the time she sat down, she was already in tears. She immediately admitted to committing a violation. She said she knew that she was supposed to cite her sources, but she had made a mistake and was very sorry.

A few days later, I convened a full board to hear the case. After five minutes to look over the evidence, we called the defendant in. I asked her the same questions I had asked in the preliminary hearing, and she gave the same answers all over again. She didn't cry this time. She put on a strong face, but it was clear she felt humiliated. She had to

watch as one of the biggest mistakes of her academic life was paraded in front of nine of her peers. When she was done answering questions, she quietly left the room, and the Board began to deliberate.

About five to ten minutes later, we had made our decision. There were no surprises. She was convicted of plagiarism, we resubmitted her assignment for a regrade with the two plagiarized sentences redacted, and decided which two members of the Board would give her a talk on the Honor Code.

The whole hearing took somewhere between 30 to 40 minutes and accomplished nothing but make the defendant feel like junk. There is the idea that a BoC hearing teaches the defendant that we take the Honor Code seriously. This might be true sometimes, but other times it is just cruel.

The truth is, the BoC deals with a wide variety of cases. Some require days of deliberation. Others require less than half an hour. Some cases make you want to rethink the Honor Code. Some cases might

not even be considered a violation at any other university. Because of this, the BoC needs flexibility in the way it operates. It needs to be able to give the tough cases the time they deserve while also moving

about ways to reduce cheating. In particular, I emphasized the importance of taking down old solution sets. I also plan to have House BoC Reps give a second BoC talk to the Frosh class at the

cases heard by any other Board in recent memory.

Unfortunately, this hasn't been enough to get through the backlog. Right now, I am doing everything I can to finish cases from third term last year before the start of winter break. There is a very real chance that this will not happen. This could mean that I call someone in in January to ask about a potential violation from last May or even earlier. That is simply unfair and makes the Board's job significantly more difficult.

The new by-laws fix this problem. They give the Board time to work on difficult cases and reduce the amount of stress for defendants.

I know there have been concerns raised about other sections of the by-laws, and I have listened to them. Last week, the BOD voted to change the amended by-laws so that they fix many of the concerns people had. If you still have any questions or concerns, please feel free to come talk to me or email me. I am always open to new ways of improving the way we protect the Honor Code.

“

The BoC cannot afford to waste time on small cases if it wants to get to important ones in a timely manner.

”

through the small cases as quickly and as painlessly as possible.

The BoC cannot afford to waste time on small cases if it wants to get to the important ones in a timely manner. One idea has been to reduce the number of cases. This is certainly the ideal approach, but it is easier said than done. Thus far, I have improved the Honor Code talk given at orientation (yes freshmen, it was even worse last year) and I have spoken to the Faculty Board

start of third term when they go on grades. However, it may take years before these solutions begin affecting our caseload.

Another suggestion was to simply have the BoC work faster. My answer, “We are!” We are halfway through the current Board's term. We have already seen more cases than any other Board in the past several years. At this rate, by the end of our term in office, we will have doubled the number of

## Caltech Couture: Changes

**NINA BUDAIEVA**  
Staff Writer

Christian was sitting outside Chandler by one of the tables with umbrellas doing some work. He was fascinated by the weather and could not bear to stay indoors. It was a Saturday and he was trying to get all his work done early because he was going to a concert later that night with some friends that he had made recently.

To his astonishment, he saw that the only other person was enjoying the weather. It was an older man drinking coffee and reading the newspaper with his dog by his chair. As someone accustomed to a

distracted by what first seemed to be a jet. He heard leaves rustling, heard a rumbling swoosh, and felt the air as the something glided past him. Christian looked up and saw that it was a Techer on a skateboard with brightly dyed hair. Rather, it was not hair. It was a mane, flourishing in the wind that the Techer was creating and blinding all observers with its brightness.

This Techer was virtuosic. While flying by, he was also enthusiastically listening to music and nonchalantly checking his phone. This was Eric. He believed in self-expression and combining his Techer wits with his Techer efficiency. He joined the growing

But still, he thinks of himself as all grown up. Eric is his own master and therefore can make the choice to dye his hair. If anyone criticizes his hair, it's because they just don't understand him. He is proud of his decisions. However, he postponed telling his parents about his new hair for as long as possible until they came to visit him for SURF seminar day.

When they came, his parents noticed that he had changed since leaving home. He became less talkative and more irritable. He would refuse to tell his loving parents what he did in his free time. He simply said he didn't have free time. For the time being, the parents only discussed the hair issue and were growing more and more concerned about the upcoming Holidays when they would reunite with the whole extended family. A temporary decision was made to use last year's family photo as the Holiday card that they would send out.

Christian blinked and went back to work. He looked up again when he heard a group of Techers happily walking by on their way to lunch. There were two of them and they were also part of Eric's elite group. Christian admitted to himself that one of the girls looked pretty good with blight blue hair tips. What an interesting place he had come to! Caltech was really beginning to bend his mind, both academically and personally. He was surprised at himself but could not deny the fact that he liked how this blonde-and-electric-blue girl looked. Still, he had come to Caltech for the education and not for style critiques, and so he dove back into his textbooks.

elitist community within Caltech. He dyed his hair so he didn't have to “express himself” through his clothing. All he had to do was to choose the correct colors. They had to say something about him and that the same time they had to be noticeable.

Eric chose red and yellow because he thought of himself as fiery and dashing.

These were also the colors of his two favorite toy airplanes that he played with when he was little. They were still proudly displayed on his shelf at home.

“

This Techer was virtuosic. While flying by, he was also enthusiastically listening to music and nonchalantly checking his phone.

”

harsher climate, he thought that it would be everyone's first reaction to take advantage of such summer weather in November! This is a climate that people have to go on vacation to get and here we get to live in it for several years. Surely not everyone at Caltech is from California or other such Elysian climates, so there must be people here who are not accustomed to 80°F in November.

Christian had a lot of work to do so he didn't ponder for very long and instead dove into his textbooks. A few hours later, though, he was

## Bond flick reviewed

**MALVIKA VERMA**  
Contributing Writer

**\*\*Spoiler Alert\*\* (article contains some plot summary)**

“So this is it?” 007 asks M. “We're both played out?” If you ask me, the answer is a resounding NO. Even in an era of cyber-spying and drone warfare and your grandmother carrying around a powerful iPhone, we still need field agents like 007.

The film franchise turns 50 years old, but if they keep making films as awesome as Skyfall, they are nowhere near retiring. As 007 is resurrected, so is the franchise.

Skyfall offers more than the usual tuxedos, martinis, hot girls trapped by 007's charm, action sequences, and stunning locations. This film is a forceful drama with Sam Mendes (American Beauty, Revolutionary Road) directing brilliant performances from Daniel Craig, Judi Dench, and Javier Bardem.

The film opens in the bustling Istanbul, as James Bond (Daniel Craig) chases a villain, utilizing four modes of transportation to recover a disk containing all the identities of NATO's undercover agents. M (Judi Dench) loses both the disk and Bond when he is shot (due to M's poor judgment) and presumed dead. But Bond must be resurrected when former MI6 agent Silva (Javier Bardem) threatens to expose MI6 undercover agents.

Mendes showcases how Bond and Silva use their anger

differently to fuel the conflict in the film. Bond expresses his bitterness, but he recognizes that M's decision was simply placing England above his own life. Silva, on the other hand, externalizes his anger and is transformed to a self-obsessed master criminal. Mendes artfully highlights this contrast with emphasis on the eyes, voice, and posture of the actors.

For classic Bond fans, don't fear! It's not all drama. Daniel Craig is a ripped badass, to say the least. No machine can replace his adaptability and ability to slickly enter a shower uninvited. The ladies hold their own in this testosterone-filled ride. Eve (Naomie Harris) is the sexy agent who accidentally shoots Bond in the beginning of the film, but she's back for lots more throughout. Séverine (Bérénice Lim Marlohe) shows plenty of skin in Shanghai and Macau, but you'll have to see the film to find out what happens to her. The action sequences in Istanbul, Shanghai, and Macau are aided with excellent cinematography from Roger Deakins.

I'm still bitter that I wasn't one of the first to see this film. The film actually opened 2 weeks earlier in the UK than it did here in the US, and due to midterms and problem sets (ok, ok, I don't have a good excuse, but it was raining a lot this past month), I couldn't make it to Arclight until last Wednesday night. But don't procrastinate like I did—go see one of the franchise's best films now!

Rating: 9/10



# Student Voices: *In favor of the BoC bylaw changes*

**KRISTEN HOLTZ**  
Contributing Writer

The Honor Code is about trust. Professors trust students not to cheat on take-home exams or problem sets. Students trust each other not to cheat or steal. And we trust the Board of Control to investigate those who do, to have good judgment, and to take every case seriously.

If you do not trust the Board of Control with this matter, you should not have voted for them or you should suggest a reform of the whole system. It is very clear to me that these bylaws are all very important to the future of the Board of Control. In this article I will discuss some of the more controversial ones.

Bylaw 2c has been a small point of contention and concerns Board of Control representatives who commit Honor Code violations. Committing almost any academic Honor Code violation or a significant non-academic Honor Code violation shows a large lapse in judgment for someone who is meant to uphold the Honor Code here at Caltech.

I understand, as brought up in last week's articles, there may be situations in which representatives commit non-academic violations but still should not be asked to step down. This amendment allows for that representative to keep his or her position at the discretion of the Chair and Secretaries, and with advice from the Dean. Additionally, in the past, representatives have committed an Honor Code violation and been asked to step down as part of their protection decision. This proposed amendment formalizes that process and makes it clear that Honor Code violations will not be tolerated from representatives. Combined with bylaw amendment 2d, the representative will also be able to keep the reason for his stepping down confidential.

I gather that amendment 3b-v seems the most concerning, but I think it is very important to implement. Here's the amendment:

3b-v: "If the defendant confesses to the violation in the preliminary hearing and does not have any prior convictions, he or she may avoid a full board hearing and instead opt to have the Chairman and Secretary make the conviction, nullification, and protection decisions. If the Chairman and Secretary agree to this, their decisions will go directly to the Dean of Students. No protection decision involving leave may be made in this manner. The Chairman and Secretary may refuse this request and send the case to a full board if they find it more appropriate."

The reason we need this amendment is because we do not have the manpower to always handle cases in a timely fashion. There are two key concerns that I am going to address:

1. Why can't we process the current load of cases through full board hearings? Why is speed or promptness important?

2. Will this affect the "punishment" (or any other decision) received by the student?

From my experience on the Board of Control, there are months where there are very few cases, and then there are weeks with a large influx of cases and it takes several more weeks, maybe a couple months, to recover. Distributed evenly over the entire year, it may be possible to take care of each case via a full board hearing without getting behind. However, there is tremendous pressure to get each and every case done promptly. One extremely important source of

representatives are also very busy and some do not commit enough time to the job. Some simply stop responding to emails, limiting the pool for the Chair and Secretaries to pull from and complicating the scheduling. Defendants can also be very busy, which makes it even more difficult to coordinate schedules.

Suggesting, "everyone's tired of BoC'ing" is a large misrepresentation of the problem. I cannot speak for the current leadership, but in my term as Secretary I was never tired of "BoC'ing". I was tired of the following things: repeat offenders, representatives who ignored my emails, defendants who ignored my emails, liars, and repeat offenders. I was never tired of serving the

seriously, the professors, or the Deans. That is incredibly important to me and every other member of the Board of Control.

It seems that some people doubt the judgment of the Chair and Secretaries, so I would like to point out some very important wording in the bylaw. The bylaw starts with the condition that the student confesses. So, for the first decision, the conviction decision, it is very straightforward to all parties that the student did commit an Honor Code violation. The second decision, the nullification decision, determines how many points should be taken off for the violation. Generally if the student confesses, it is very clear which portions of the assignment should be nullified because they tell you

his/her case, the Honor Code, and how to avoid further interactions with the Board of Control). Harsher punishment would only be doled out if the student did something terrible, extensive, or malicious. In this situation, any Chair or Secretary would want to consider putting the student on leave and therefore would push the case to a full board hearing. So we can trust that the third decision, the protection decision, will be consistent with what the full board may decide.

As far as additional solutions go, it is likely that some representatives do not pull their weight and make it very difficult for the Chair and Secretaries to schedule cases. To fix that, I suggest that you all think more carefully about whom you elect into these positions.

If you feel that the Board of Control leadership is not trustworthy or lacks integrity, you probably shouldn't have voted for those candidates. The Chair and Secretaries know that their primary purpose is to protect the Caltech community, and electing people to these positions who do not care is a lapse of judgment on all of our parts.

The Chair and Secretaries can affect all of the Board of Control procedures and the integrity of the committee whether or not this bylaw is passed.

“

If you feel that the Board of Control leadership is not trustworthy or lacks integrity, you probably shouldn't have voted for those candidates.

”

this pressure is professors. When a professor reports a student for an Honor Code violation, he or she would naturally like a response as soon as possible. If it takes over a month or even into the next term to process the case, professors begin to question the effectiveness of the Board of Control and the Honor Code at Caltech. They lose their trust in the system and the students, and they might even decide to change their policies to be stricter. Students then lose some of the freedoms we value so highly.

There are additional logistical reasons why a preliminary hearing should be held soon after the report is received, and a decision reached soon after that. Defendants, guilty or innocent, want a decision quickly. It is common for students, despite their innocence, to lose sleep and have trouble focusing due to their fear of the impending full board hearing. On top of this, the more time there is between the violation and the hearing, the less the defendant(s) will remember. Their testimony will be much less helpful in trying to determine what happened. And, if the hearing is far enough away that the student does not remember, that can be used against us in court if a defendant chooses to appeal the decision. Anything wrong with our procedures undermines the validity of our recommendation.

The key reason the Board cannot always keep up with the cases is due to shortage in manpower. I am confident that Avin, Anna, and James are doing their best to be efficient and thorough, but they are still limited and they are still very busy Caltech students. The

Caltech community as a whole: the students who take the Honor Code

a talk between two members of the Board with the defendant about

## Caltech Totem Instagram Competition Theme: Forced Perspective

Submit your **Instagram** or **Cell Phone** pictures to the **Caltech Totem Facebook page** or email them to **caltech.totem@gmail.com!**

Prize: 1st Prize winner will get a Mannion Dinner for 2-3 people, plus a \$20 Amazon giftcard!

Pictures will be judged on creativity rather than technical excellence. Anyone affiliated with Caltech may enter.

**Deadline: 12/9/12**





# New faces: Introducing Cassandra Horii

**SANDHYA CHANDRASEKARAN**  
News Editor

*Cassandra Horii is the new director of Caltech's center for teaching and learning. The center was recently established as a resource to cater to the academic needs of both students and faculty on campus. The Tech sat down with Cassandra to learn more about her and her plans for the center in relation to the Caltech community.*

**You majored in physics as an undergraduate and earned a doctorate in atmospheric chemistry. How did you end up in this particular line of work?**

I started to be curious about teaching, learning, and higher education as early as an undergraduate, when I completed an honors thesis on learning in the sciences. Later on, I worked as a consultant at Harvard at their teaching and learning center, and closely worked with my faculty advisor on designing new curricula for some of the core courses. My scientific interests and my interests in learning have grown in parallel over time, and this became a really compelling career direction for me to pursue.

After my Ph.D., I taught first-year writing at Harvard for several years; I was also associate director at the Bok Center for Teaching and Learning at Harvard. From there, I went on to become a dean at a small college just outside of Boston, where I really got to design a center for teaching and learning from the ground up.

It has been great to broaden my reach and to work with faculty and disciplines outside of the sciences. But I am glad to be back working closely with a campus so dedicated not only to the sciences, but also to gaining a breadth of understanding and knowledge through the humanities and social sciences.

**How does Caltech parallel (or differ) from other universities you have observed over the years?**

Every institution has its own particular character. One thing to note in particular is that our classes are comparably smaller. The classes become intimate very quickly, which is really a hallmark of the environment here.

A big surprise I discovered is just how often faculty are working on their teaching, in ways we don't always hear about; I think that appropriately comes from how our groundbreaking research is the story of the day. But then, underneath that, is a great deal of private thought and innovation.

One of my jobs is to unearth this, and really help faculty share what they are doing, across courses and divisions, so they have access to a greater pool of resources and information.



-Provided by Cassandra Horii

**What is the center for teaching and learning?**

The new center (which we are working on naming more formally) is a resource to make teaching and learning work better in ways that really respond to student and faculty interests and needs.

**Whom does the center for teaching and learning hope to serve?**

The three populations to think about would be students in their role as learners; students, undergraduate and graduate, in their role as teachers; and faculty members in their roles as course leaders and teachers. Themes will overlap as we continue to develop programming and really build the center, but obviously everyone's

what we're doing by exploring our start-up website, [www.teachlearn.caltech.edu](http://www.teachlearn.caltech.edu).

For example, this quarter, I piloted a seminar on getting mid-quarter feedback, and a range of people attended, from undergraduate TAs all the way through emeritus faculty. I will continue to work with people on that; the more we get feedback throughout a course, the more meaningful the end feedback is—it's actually one of the simplest and most effective ways to improve both teaching and learning.

One thing that can be very helpful to do is to discuss feedback with another individual and sort through an action plan to prioritize. Since I have developed a background of research on how learning works, I can help decode what a message from a class might

**What would your role be in the center for teaching and learning?**

As director, I wear a lot of hats: from planning and budgeting to designing and running workshops on teaching and learning, such as for new TAs and early career faculty, and others. I will also supervise staff—at the moment, we are currently working on hiring an Educational Outreach Coordinator to support faculty on new K-12 and public education outreach projects. Another large part of my work consists of individual consultations—whether sitting down with someone to discuss course feedback as mentioned, or providing information about different approaches to online teaching, or responding to a question about methods for effective lecturing. People don't often see that side of my role, but it's incredibly rewarding and varied.

Regarding the TQFRs and any formal evaluation of teaching, those will stay right where they are, with the Registrar's Office and the Office of Institutional Research; my role is really to help people make the best use of that information—for example, I can work with graduate students applying to faculty positions on putting together their teaching portfolios.

**The Academics and Research Committee (ARC) is an organization of student representatives dedicated to improving student and faculty**

**ties. How do the ARC's goals compare with your own?**

First of all, it is fantastic that students are so involved in the process of teaching and learning at Caltech. From the moment I stepped on campus, the ARC was part of the process for me, and I got to know the people and the mission of the ARC.

I hope that our center and I will be a resource for the ARC. Through the ARC, students will continue to identify priorities and topics they would like to work on. When you identify a direction in which you would like to go, I am a resource who can help provide some of that background information, ask questions at some times, help troubleshoot at other times, and really collaborate.

**What are some other on-campus groups with whom you hope to collaborate?**

Another way that Caltech is pretty unique is that a graduate student group, the Caltech Project for Effective Teaching (CPET), has organized itself and run a series of teaching-related seminars and workshops.

The group has also developed a certificate program for graduate TAs to show and document their interest in teaching, which is great for them out on the job market, where they may potentially apply for faculty positions.

As more people participate, it becomes naturally more difficult to maintain such a large program. So, like my work with ARC, I am working with CPET. They will continue to set their priorities and interests and define topics, and I want to support that, while expanding the circle of opportunities for people.

**What are your future plans for the center for teaching and learning?**

Right now, the center consists of myself, but I think it is important to emphasize that we are just starting up; I have been here just since late summer.

When we do establish the center over the coming months, this will be a physical location where students and faculty could walk in with questions and find a range of resources in one place.

There will also be workshops and ongoing opportunities to learn more about learning and teaching. This term, we worked to help train class ombudspople, and the meeting had pretty good attendance as a pilot. Over the upcoming academic year, everyone at Caltech can look forward a full sweep of programs.

*Feel free to contact Cassandra Horii by email at [cvh@caltech.edu](mailto:cvh@caltech.edu) with any questions, comments, or ideas. The center's website is [www.teachlearn.caltech.edu](http://www.teachlearn.caltech.edu)*

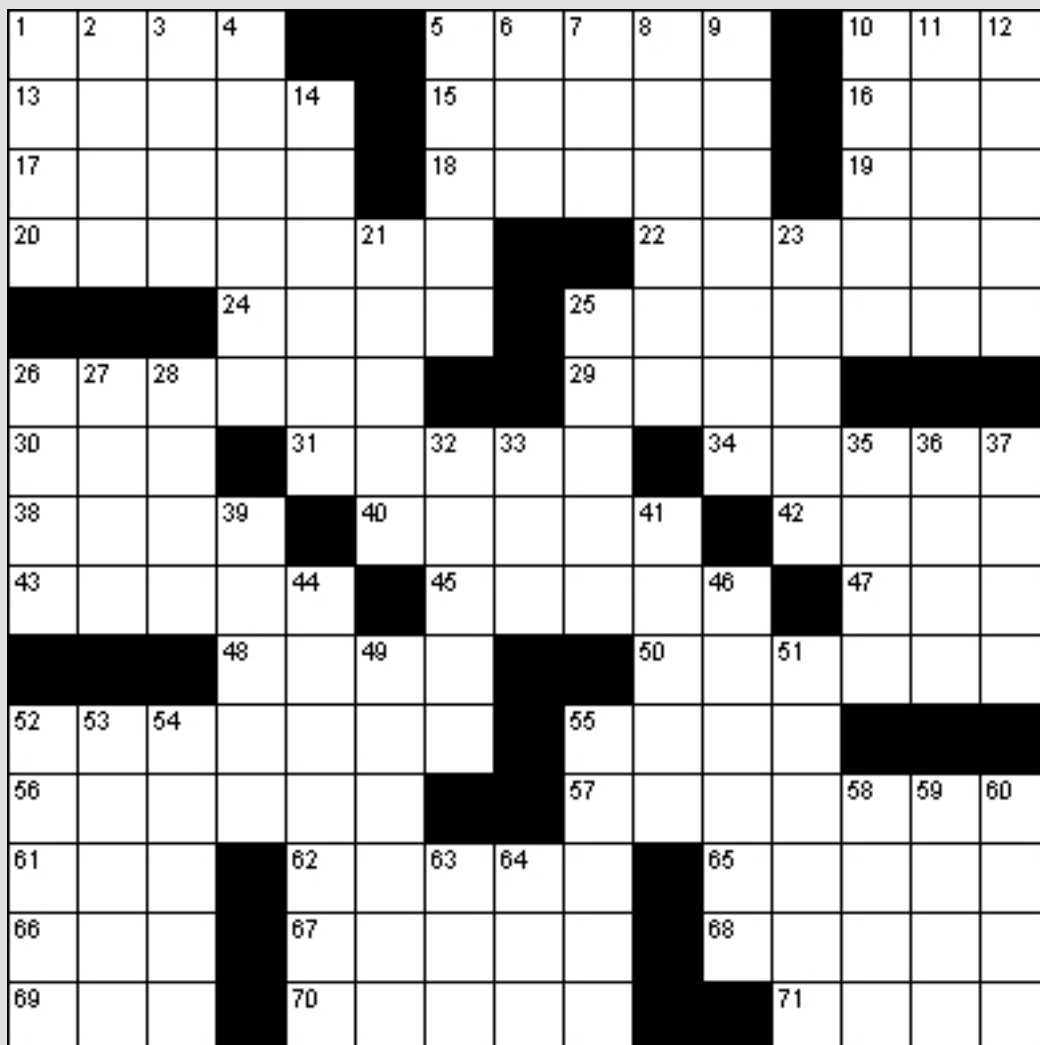
“ A big surprise I discovered is just how often faculty are working on their teaching...One of my jobs it to unearth this, and really help faculty share what they're doing... ”

- Cassandra Horii

needs in these categories differ a bit. The Caltech community can expect to see more programs and services, which we have already begun to develop, to meet everyone's needs in the long run. You can get a sense of

mean, when the individual pieces of feedback do not all agree. We could then link them to strategies that might help students and faculty alike, improving the process for everyone.

## Today's Puzzle: Crossword



**Across**

- 1. Outbuilding
- 5. Military trainee
- 10. Health resort
- 13. Ashen
- 15. Stage whisper
- 16. Bronze
- 17. Mediterranean fruit
- 18. Belonging to them
- 19. Floor covering
- 20. Oval
- 22. Contusion
- 24. Entrance
- 25. Swimming shoe
- 26. Aft
- 29. Sediment
- 30. Hawaiian garland
- 31. Crown-like headdress
- 34. Send payment for
- 38. Encounter
- 40. Walk clumsily
- 42. Orderly
- 43. Small branch
- 45. Massage
- 47. Concession given to mollify
- 48. Salver
- 50. Steal cattle
- 52. Show appreciation

55. Land measure

- 56. Facile
- 57. Law officer
- 61. Paddle
- 62. Former European gold coin
- 65. Sashay
- 66. Single
- 67. Give expression to
- 68. Beauty parlor
- 69. Golf accessory
- 70. Go in
- 71. Salacious

**Down**

- 1. Wild plum
- 2. Mound
- 3. Iniquity
- 4. Separate into parts
- 5. Provide
- 6. Type of tree
- 7. Perish
- 8. Fit to eat
- 9. Hunting dog
- 10. Airfield
- 11. Hesitate
- 12. Ire
- 14. Extradite
- 21. Relating to sound

- 23. Overturn
- 25. Fire
- 26. Voluntary contributions
- 27. Ooze
- 28. Level
- 32. Synthetic resin
- 33. Operate
- 35. Thin fog
- 36. Object of worship
- 37. Variety
- 39. Heading
- 41. Dry out
- 44. Spanish nobleman
- 46. Compulsory force
- 49. Fall
- 51. Successive
- 52. Walking
- 53. Woodworking tool
- 54. Prepare food by straining or blending
- 55. Daisylike flower
- 58. Not in active use
- 59. Current
- 60. Withstand the force of something
- 63. Crib
- 64. Consumed

[<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)*



# Caltech women's basketball starts season with Caltech-Occidental Thanksgiving Classic, loses

**AMOL KAMAT**  
Sports Editor

Basketball returned to Caltech this week as the women's team played in the Caltech-Occidental Thanksgiving Classic, a two-day, four-team, I guess, "classic". Actually, their first game was supposed to be against Linfield, but all the Linfield players mysteriously got food poisoning before the game. They probably went to Burger Continental or something (this joke is brought to you by Vishnu Manoranjan, who won a Burger Continental gift card at Midnight Madness and was so disgusted, he left it in the stands). So, the girls began their campaign with a home game against Oberlin. The game was mostly attended by Oberlin fans (a group that included two traitorous Caltech students who made what turned out to be a winning bet with some of the Caltech players and Oberlin's vice president and dean of students, who has a truly marvelous head of hair).

Oberlin went on a 12-0 run to begin the game, holding the Beavers scoreless in the first six minutes. Eventually, Caltech's Paige Logan made a jumper to make the score 12-2. But, the Oberlin offense (and defense) refused to let up, increasing the margin to 21 at halftime (33-12).

The Beavers didn't fair so well in the second half either, although they held a 1-0 lead for a couple minutes before Oberlin's Malisa Hoak (that's one of those names which you have to be famous to pull off or you hate your parents forever) hit a three-pointer that ended that dream. Oberlin continued their dominance, ultimately defeating the Beavers 72-31.

Stephanie Wong led Caltech with 11 points. Christina Marquette of Oberlin led the scoring for the day with 21 points. It also seemed like our players were a little bit afraid of her, always backing off when she drove through the middle. Although, to be fair, I was little afraid of her, too.

On the final day of "the classic", Caltech played the Whitworth Pirates of Spokane, Washington

(fun fact: I watched Red Dawn this weekend, as I am a big fan of the original, which is set in Spokane). The Beavers started out strong, going up 5-1 in the first two minutes.

The Pirates tied it up at eight after three minutes, and soon took a 12-9 lead.

But, the Beavers weren't finished yet, tying it at 14 with just under 13 minutes to go. Then, they were finished. The half ended with the Pirates leading 51-20. The second half wasn't much better. Actually, it was much worse. Whitworth quickly resumed their winning ways, keeping the Beavers from scoring for the first three minutes while putting up 11, themselves.

With five minutes left, they had really pulled away, up 89-24. And then came the classiness. Despite being up by 65, the Pirates began taking three pointers in an effort to reach 100 points. So, fine, it's a nice goal, I guess, if you're into that sort of thing.

But, after reaching 102 and with just 13 seconds left, Whitworth's Faith Emerson took and made another 3-pointer, ending the game at 105-26 (for those of you keeping track, the second half score was 54-6). Typically, I would, at this point, complain about un-adaptive coaching or lack of motivation/spirit in the team, but I was really put-off by the running up of the score. Uncool, Pirates, uncool.

Also, what's up with opinion articles, these days? Calling out specific Caltech students? Also uncool.

What happened to complaining about housing or the deans or CDS? You know, classic undergraduate complaining. All I'm saying is that's not how you convince me of something.

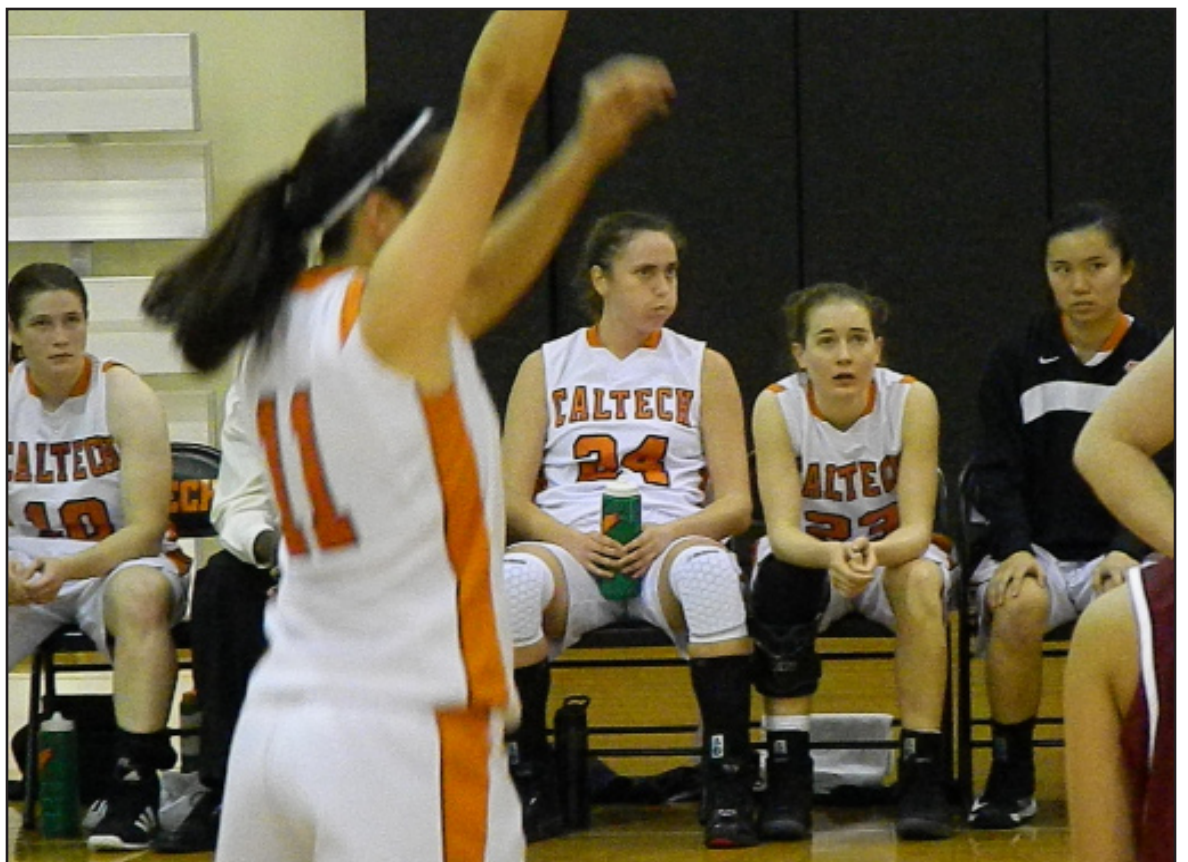
Anyways, the Pirates had six players with double-digit scoring, while Caltech was once again led by freshman Stephanie Wong, with 15 points. Wong was named to the all tournament team for her scoring prowess.

The Beavers begin conference play when they take on Redlands at home on Thursday at 7:30 pm. The men's team also plays Redlands the night before.



*Bridget Connor takes a shot against Oberlin on Friday night.*

- Amol Kamat



*Sarah Wright attempts a free throw against Oberlin on Friday night...dat face, though.*

- Amol Kamat

## Weekly Scoreboard

*Men's Basketball  
vs. Macalester  
L, 73-61 Final*

*Women's Basketball  
vs. Whitworth  
L, 105-26 Final*

*Women's Basketball  
vs. Oberlin  
L, 72-31 Final*

*Men's Basketball  
vs. La Sierra  
L, 58-44 Final*



## Black Friday: A grand American tradition

**RAJ KATTI**  
Contributing Writer

USA— On Friday, popular demonstrations by workers at the world's 19th largest economy were swiftly crushed in what historians have already dubbed the "Black Friday Massacre." Starting early Friday morning, the economic superpower swiftly put down approximately 8,500 demonstrations over a geographic area spanning five continents, primarily concentrated in North America. As of Saturday morning, the American Red Cross has reported 5,784 dead and upwards of 17,000 wounded. Independent agencies have

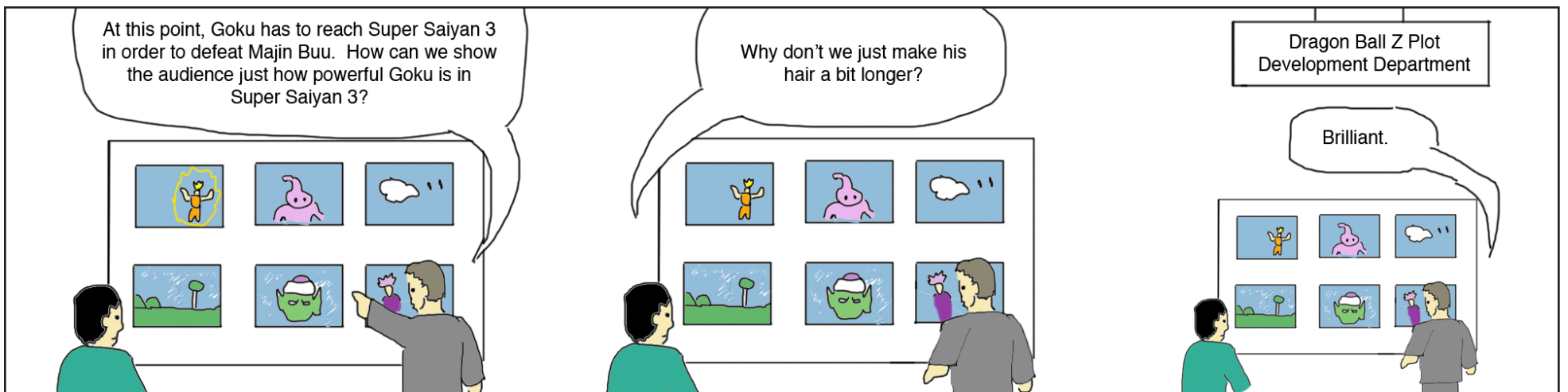
confirmed allegations of numerous civil rights abuses, including the slaughter of at least 2000 unarmed senior citizen workers. The workers had been protesting inhumane working conditions and demanding basic human rights such as adequate healthcare, cost-of-living pay increases, and reasonable work hours. Senior spokesperson David Tovar commented, "These incidents precipitated by a handful of impressionable agitators have been successfully contained." When

“  
This sovereign entity, possessing greater economic power than Norway, Saudi Arabia, and most African nations, will not tolerate Western meddling in issues of security.

- David Tovar

meddling in issues of security.”  
Added Tovar, “We have no information concerning such human rights abuses.”  
U.S. Secretary of State Hillary Clinton and other leaders of NATO will meet tomorrow to discuss economic sanctions on the superpower, as well as the release of a single protester who has been memorialized for waving a white flag at superpower police forces in a symbol of non-violent resistance.

## Acquired Taste



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

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

The California  
Tech  
Caltech 40-58  
Pasadena, CA 91125