

## Upperclass Awards Axed

*Decision Quietly Made Last Year*

**By Tina Ding**  
STAFF WRITER

The upperclassmen merit scholarship that awards a sum of 2-3 million dollars to upperclassmen every spring has been permanently canceled to sustain the increase demand in need-based financial aid. “The big picture is that we need money for need based aid so that any student should be able to come regardless of financial status,” said Erica O’Neal Howard, Assistant Vice President of Student Affairs. The decrease in endowment from last year has reduced the main source of funding in financial aid money. Unlike other universities in which aid money comes from the general budget money, the money from tuition, dormitory, and such, Caltech’s financial aid is mainly supported by the endowment and donors. “Need

based financial aid has gone up because the tuition has increased and family economic situation has worsened on average,” said O’Neal. The financial need of the 47% of Caltech student on financial aid has increased on a budget that has decreased.

The endowment also funds the annual upperclassmen merit scholarship. To compensate for the lower budget for need-based aid, “we need to direct all our funds to need-base financial aid to maintain our financial aid system,” said O’Neal. Caltech’s financial aid system is ranked #8 in 2009 and higher in previous years by US News for “Best Value”, meaning the best education for the best price.

“From the enrollment perspective, the goal is to enroll topnotch students and to attract

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PHOTO BY TINA DING

The Monday Jazz Band performs in front of Winnett during lunchtime on Friday

## Symposium highlights mortality in Africa

*Placed emphasis on infant and maternal issues*

**By Casey Jao and Vivian Yang**  
STAFF WRITERS

This past Saturday, Caltech community members packed into Ramo Auditorium to attend the second annual African Health Symposium, hosted by the cooperation of the GEANCO Foundation and Caltech’s very own Global Health Association. Speakers came straight from sub-Saharan Africa and their research hospital laboratories to discuss public health education, pediatric infectious diseases, faith-based community outreach, and the opportunities that the general community can take to help the problem of maternal and infant mortality in Africa.

“As Caltech students, we tend to focus on small things, but it’s really good for us to zoom out and think about the bigger problems that are easily solved with a little elbow grease,” said Chess Stetson, coordinator of the Caltech Global Health Association. The Caltech Global Health Association is a small but powerful group of students that helped organize both this year’s symposium and last year’s, which discussed HIV and malaria in Africa from an

epidemiological viewpoint.

“[Malaria] is an easy problem to solve if you just add soap and water, two dollars worth of medication, and ten dollars worth of bed nets,” Chess mentioned about last year’s symposium. This year’s show was run by a small army of undergraduates, graduate students, and even JPL staff clad in white T-shirts boldly and optimistically proclaiming, “They will suffer no more on my watch.”

The day opened with remarks by GEANCO co-founder Afam Onyema. He cited some remarkable statistics that set the stage for the rest of the symposium. Some of the more striking ones: Each year, 1.16 million African children die before their twenty-eighth day of life. One per every five African children will die before their fifth birthday. The list went on and on, and the need for action became clear.

The first speaker, Lisa Bohmer, is

the director of global partnerships and program resources for the Elizabeth Glaser Pediatric AIDS (EGPA) Foundation. She discussed the prevention and management of HIV and AIDS, particularly in African women and children. Aside from primary infection, which is most

“As Caltech students, we tend to focus on small things, but it’s really good for us to zoom out and think about the bigger problems that are easily solved with a little elbow grease. [Malaria] is an easy problem to solve if you just add soap and water, two dollars worth of medication, and ten dollars worth of bed nets” -- Chess Stetson

commonly transmitted blood-to-blood, vertical transmission is also a large factor in the spreading of the AIDS epidemic. Vertical transmission is the infection of HIV from mother to child during pregnancy, labor, or breastfeeding. Without intervention, an infected mother has a fifteen to forty-five percent chance of passing the virus to her fetus. Of the HIV-positive children in African, only

thirty-eight percent receive any form of treatment.

Bohmer pushed for the use of antiretrovirals, also known as ARVs, which can reduce the risk of vertical transmission and hold the virus at bay if transmission has already occurred. These medications are subsidized by external sources, including the US government, the Center for Disease Control (CDC), and the Global Fund. “There’s a real need to keep up the commitment [to funding and reducing costs] because once you start someone on ARVs, it’s life-long,” stated Bohmer.

“Developing children [in Africa] have three bullets to dodge,” said Dr. Grace Aldrovandi, an energetic research physician at Children’s Hospital in Los Angeles in conjunction with the University of Southern California. Aldrovandi investigates epidemiological factors in the transmission of HIV from mother to child and also the pathogenesis of HIV in

children. Vertical transmission, she explained, occurs primarily in utero, during birth, and during breastfeeding.

Surprisingly, Aldrovandi emphasized and pushed the importance of breastfeeding over using formula, despite the risks of HIV vertical transmission. Breast milk contains immune factors from the mother which can protect the infant from various other infections. Moreover, according to Aldrovandi, it rarely contains enough virus particles to infect the baby so long as the HIV-positive mother follows a strict feeding regimen. Risking the scorn of multinational corporations and to the amusement of the crowd, Aldrovandi proclaimed, “Formula is like milk from a woman with advanced HIV.”

Another speaker on the program was Jean Duff, executive director of the Center for Interfaith Action on Global Poverty (CIFA), who discussed an interesting approach to solving global poverty. This organization utilizes faith-based community outreach programs in malaria-stricken countries, like Nigeria.

“Faith leaders are...in many cases, the most important source

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## The Bagels

By Aryan Safaie and Edward Chen

UNDERGRADUATES

We're sorry that you were bereft of your bagels [three] weeks ago. However, that was not Anthony's fault, and you blaming him in such a petty way makes it pretty clear that you need to shake out a little more sand.

If you're wondering, the arrangement is as follows: we pick up the bagels from Noah's along with the Tech on Monday mornings, and we're reimbursed by ASCIT. However, lately there's been some confusion about our reimbursements, something that is completely not Anthony's fault at all, and we decided to skip out on the bagels for that week. It won't happen again in the future.

## The Cost of Health Care

*Private Industry Provides Cheaper Coverage than Existing Public Programs*

By Tristan Brown

UNDERGRADUATE

In my previous article, I mentioned that government-imposed health insurance violated our rights by forcing individuals to pay for the system without being given a choice. However, many people believe that our society cannot give honest, hardworking people the means to take care of their health without subsidizing through government programs.

The reason health care premiums are so high is because greedy CEOs are taking it all in the form of salaries, right? So, is this small infringement on our freedoms a necessary evil?

The belief that government-controlled health care would be more efficient is a horrible misconception. The country could save over \$200 billion every year just from cleaning out the waste and abuse in Medicare and Medicaid. Barack Obama himself admitted as much.

Additionally, government regulation of the private industry adds an additional \$300 billion in waste, according to a 2004 CATO Institute study. Elimination of those costs alone could pay for health insurance for 40 million families.

On the other hand, I've quite often heard the suggestion that elimination of the for-profit aspect of the health care industry would save enough money to pay for public insurance. What most people don't seem to realize is that the annual profit margins for private health care insurers hovers around 4%. The total profit of the entire health insurance industry last year was a mere \$13 billion.

Take a minute to let those figures sink in. Private industry

costs us \$13 billion a year so they can profit, while the federal government costs us \$500 billion per year in waste alone. And the solution is to add more wasteful government programs and

of the regulations that raise costs so much.

But what about age demographics? Most of those insured through Medicare are over the age of 65. It costs a

"We are currently spending \$2.2 trillion per year on healthcare in this country. \$850 billion of that is spent on Medicare and Medicaid to cover 103 million people, and another \$184 billion is spent on other government health programs. That means that the government spends 47% of total health costs to cover 34% of the people. Private industry spends 53% of the total costs to cover 51% of the people. Private industry clearly does a far better job of providing efficient health insurance services."

regulation?

To further drive the point home, let's take a look at the bigger picture. We are currently spending \$2.2 trillion per year on healthcare in this country. \$850 billion of that is spent on Medicare and Medicaid to cover 103 million people, and another \$184 billion is spent on other government health programs. That means that the government spends 47% of total health costs to cover 34% of the people. Private industry spends 53% of the total costs to cover 51% of the people. Private industry clearly does a far better job of providing efficient health insurance services. And they'd do an even better job (39% of current costs to cover the same 51% chunk of people) if we passed tort reform and cut some

private insurer about 4x as much to insure someone above the age of 65 as it does to insure someone at the median age of 38. So, using that figure, let's calculate what it would cost private insurers to insure the same group of people.

Of the 103 million people receiving Medicare or Medicaid, a maximum of 39.5 million are over the age of 65 (taking the latest age demographic census figures). So, using the figures above, it costs a private insurer an average of \$7,500 to insure each person under 65 each year. That means it take an average of about \$30,000 to insure each person over 65 each year. Taking those numbers directly, it would cost a private insurer \$1.66 trillion to insure the same group of people that the government insures for a

little more than \$1.03 trillion.

However, there's a hidden cost that the government programs incur on private insurers. Medicare requires that health care and drug providers provide discounts averaging around 20-30% with programs like this: <http://www.kff.org/medicare/upload/Medicare-Drug-Discount-Cards-A-Work-in-Progress-Executive-Summary.pdf>

The penalties for noncompliance by providers are massive fines and taxes, meant to make it more worth it to them to comply.

Now, when Medicare gets a discount, it's those who pay privately who are forced to pay for it. So, since our original figures were determined under an effective 40-60% difference due to the 20-30% discount (or rather, transfer of costs), we can take about 25% off the costs of the private insurers and add that 25% to the government's costs in a world without Medicare. That brings private costs down to about \$1.24 billion, and the government's costs up to \$1.37 trillion.

So, that's only a small advantage, but if you then again figure in the \$300 billion cost to private insurers due to wasteful regulations that the government imposes, then the private insurer cost gets down to \$940 billion compared to the government's \$1.37 trillion. That means the government still incurs upwards of 40% more costs than the private insurers.

The solution to cutting costs in health care does not reside in government programs. By trying to cut corners and force the market using governmental power, we're only raising costs and hurting ourselves.

### 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)

Editor-in-Chief  
Chris Kennelly

Layout Editor  
Hanna Liu

Staff  
Dannah Almasco  
ZeNan Chang  
Tina Ding  
Daniel Erenrich  
Andrew Freddo  
Michelle Jiang  
Casey Jao  
Natalya Kostandova  
Brian Merlob  
Monorina Mukhopadhyay  
Joel Nikolaus  
Rick Paul  
Alex Roper  
Gloria Tran  
Vivian Yang  
Wesley Yu

Business Managers  
Gabriel Mendoza  
Chris Kennelly

Circulation  
Aryan Safaie

Adviser  
Tom Mannion

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## IHC MINUTES - NOVEMBER 5, 2009

**Present:** Pallavi, Tim, Benji, Daryl, David, Max, Paul, Robbie, Rosa, Sly

**Absent:** None

**Guests:** Daniel Kolodrubetz, Dan Thai, Chris Hallacy, Feldy

**Max:** QBP BNN RTJ CRD

Presidents need to get in their Senior Reps into DanO, and dues lists into Tom Mannion.

**Rotation Committee:**

Committee to review rotation has been formed. Its membership and charge is public, and published in this week's Tech. There will be a website to submit comments to the committee.

David: Would they consider changes to Avery?

Robbie: It's possible that they'll say "students that don't want to rotate can go to Avery."

David is concerned. Is it necessary to single out Avery?

Daryl: We're looking at the past and the present. Avery is singled out because of how Avery used to be different from the other houses, not because they are considering changing Avery. David wants Avery to have input. People will be brought in to talk to the committee.

Tim and Pallavi will write an article for the Tech.

**Mural Policy:**

Peter Daily, Tom Mannion, Geoff Blake, Student Housing Committee, Anneila Sargent going through the policy and making it more detailed. The revised policy will probably come out in early December or early January. There will be no murals until then. Peter Daily was very clear about this.

Tim and Pallavi going to talk to Anneila about the student center.

**Damages:**

Sly: Stewardship rep said they're going to charge students for paintball cleanup charges that happened over the summer. The charge is over \$1000. They need to decide who to charge. Presidents should talk to their houses.

Robbie: Dabney stole Lloyd's hammock, and it broke. They split the cost of a new hammock. Lloyd's hammock was stolen again by Ricketts, and it broke. They'll work out the details of paying for it later. I think that stealing is not a prank. Dabney stole Lloyd's cement ball, and I

don't view this as a prank either.

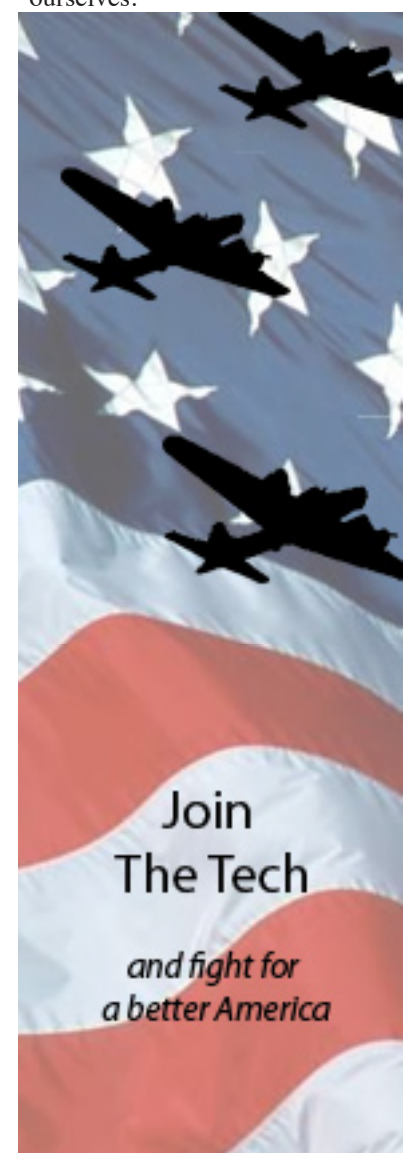
A discussion followed about acceptable pranking. Robbie said that stealing and damaging others' property is an honor code violation. Robbie, Daryl, Paul, Sly thought stealing without notifying the president was not a prank. David noted that Avery did not appreciate events where houses steal from other houses. Max said that as long as you work it out with the president, it should be okay. Max and Rosa both said that people would steal without notification. Benji said that there are no absolutes; don't steal from a house that doesn't want to be stolen from. A conclusion was not reached.

Dan Thai: The IHC will turn over and when it does, it's not necessarily true that the next presidents will talk to each other the same way.

Everyone: The presidents will talk to their successor and things will be understood.

**Avery:**

There was a discussion about updating documents to consider Avery a house. David will write a proposal to present to the IHC and house Excomms.



# Mural Policy Update

By Tim Black and Pallavi Gunalan

IHC SECRETARY AND CHAIR

*[Editor's Note: This was published at the request of the IHC]*

Over the summer the trustees had their regular meeting at Caltech and were quite upset with the murals they saw in the houses during a house tour. Following this meeting, the IHC attempted to come up with solutions to present to the administration to remedy the situation. After lengthy discussion, the IHC agreed to have specified murals painted over, a decision which was well-received by administrators and trustees. The mural policy has not been enforced, and currently, no murals are allowed to go up until the policy is altered.

According to Asst. VP of Student Affairs, Tom Mannion "The original mural policy came out of an agreement on stewardship (several years ago) between the Trustees and the students. The Trustees and administration had been concerned that the students needed to make a strong statement that they would take care of the South Houses if/when they were restored." The IHC of 2008-2009 worked with the administration, and the Student

Housing Committee to establish a mural policy that was signed into effect by the current IHC. This policy can be found on Caltech Housing's website: [http://housing.caltech.edu/undergrad/mural\\_policy.asp](http://housing.caltech.edu/undergrad/mural_policy.asp). After it was signed into agreement, the mural policy was not enforced by the students or the administrators, and has led to a number of inappropriate and/or unapproved murals going up.

Over the summer the trustees had a meeting with the Student Experience Committee. Undergraduate representatives Andrew Price and Daryl Coleman attended. During this meeting the trustees discussed the house murals extensively. There are multiple layers to the concern voiced by the Caltech trustees. The trustees viewed the murals as substantial damage to the houses, responsible for dissuading donors from giving money to completely rebuild the north houses, and imposing on members of the Caltech community in a possibly offensive manner. Price observed, "Shortly before the meeting many of the trustees on the committee went on a tour of the Houses and had been a bit disturbed by a lot of the things that they had seen. I would say that the trustee meeting quickly became very spirited -- stories that they had heard of more extreme Techer traditions struck a

dissonant chord with them. Many of the things that we think of as 'murals' they described as 'graffiti' or 'defacing the walls,' and they cited examples of various Houses with murals that were either of little artistic merit or that were offensive/sexist/homophobic." Coleman noted, "Pointed out were major depreciating factors including very 'used' furniture, and several of the murals. Many of the Trustees expressed concern that the current state of the Houses was not something that was easy to sell to possible donors."

So what was the conclusion of that meeting? "The Trustees realized that murals are a very deep and integral part of the House cultures. As such, the committee decided to give students a broad charge to try to make the current Houses more attractive to potential donors," said Coleman.

And Price agreed "Despite their indignation, however, the trustees were willing to acknowledge a generation gap, the need for artistic freedom of expression, etc., and seemed amenable to some compromise on the issue."

Following the meeting, the IHC worked with Tom Mannion and Peter Daily to discuss possible solutions to the mural issue. Alternative surfaces for painting murals were suggested,

including canvas and panel. One of the alleys in Dabney was painted over with the intention of putting up a trial panel, but when it became clear that murals on the walls would be saved throughout campus, panels no longer became an acceptable alternative for students in Dabney.

Before the beginning of school, each house president for Page, Lloyd, Ruddock, Ricketts, Blacker, and Dabney walked through their house and created a list of murals they agreed were inappropriate, incomplete, or needed to be touched up. This list was then given to Peter Daily and housing, who began painting over the murals during freshman orientation and finished recently. According to administrators, trustees were pleased with the proactive approach of the students. "The response from the trustees and the senior administration was overwhelmingly positive, especially those who saw the results," said Tom Mannion.

Because of these recent developments and because the mural policy had not been enforced, Asst. VP of Student Affairs for Housing and Dining Peter Daily, Asst. VP of Student Affairs for Student Life Tom Mannion, the Master of Student Houses Geoff Blake, the Student Housing Committee, VP of

Student Affairs Anneila Sargent and the IHC will be working on adjusting the mural policy to include, amongst other things, a clearer procedure for having murals approved prior to putting them up. Due to the number of people that must agree on this modified policy, Daily and Mannion expect the policy to be approved and implemented at the end of Fall Term or possibly the beginning of Winter Term. And because a mural policy must exist before new murals can go up, the ban on new murals will continue until that time. Solid colors are allowed to be painted, but should be approved by Asst. Director of Housing, Mike Raven.

Andrew Price summarizes the current situation regarding murals quite well: "I have painted my current room and two murals -- I don't regard the murals I have painted as graffiti, and I think few Techers would; one of the most attractive things about Caltech to me was the culture of student freedom and responsibility, and this culture is one of the things I admire most about Techers. The mural policy we see today is obviously a compromise for us, and I am hopeful that the changes will address the Trustees' concerns while not significantly interfering with the freedoms which students enjoy."

# Rotation Committee Formed

By Tim Black and Pallavi Gunalan

IHC SECRETARY AND CHAIR

*[Editor's Note: This was published at the request of the IHC]*

Caltech administrators heard a lot about rotation this year. In addition to hearing from many frosh about how happy they are in their houses, they heard of violations of the fire, harassment, and alcohol policies, and of situations where upperclassmen were being tasteless and where pre-frosh were treated in an unwelcoming way. In response, the administrators called for a committee to review rotation from the ground up.

A committee of this sort was suggested within a week of rotation, and details were worked out in the following weeks. Vice President of Student Affairs Anneila Sargent asked Associate Professor of Geology and Geochemistry Paul Asimow

to chair the committee. At the suggestion of Dr. Sargent, the IHC proposed a charge for the committee, and Dr. Sargent used the IHC's proposal to write the final charge. The IHC selected four of its members to be undergraduate representatives to the committee. Prof. Asimow selected a fifth student member and selected the rest of the committee.

The committee began meeting last week and will continue to meet frequently. It expects to make its report by February of next year, in time for the IHC to be able to implement changes, and for admissions to tell prospective students how housing works.

Master Of Student Houses Prof. Geoffrey Blake explained that the increased awareness this year was in part due to the new system of freshman advising. Freshmen are meeting more regularly with their advisors, and have been talking about rotation.

The committee will be looking in depth at many aspects of rotation, and has been prompted not just by this rotation this year, but also by past years. Writes Prof. Asimow,

"Reports on residential life and the student experience going back at least 8 years (including TURLI and the SET) have called for changes in Rotation in order to address various concerns, but no major changes have been made and no committee has deliberated specifically on the optimal way to assign freshmen to houses. Prompted by a particular rash of Rotation Rule, Honor Code, and Institute Policy violations during Rotation week this year, the VP for Student Affairs decided it was time to pick up this unfinished task and so has empowered a committee to consider the issue very broadly and make a recommendation. We will think carefully about the problems and advantages of the current system and a range of alternatives. We hope to come up with a system that preserves important principles such as student self-governance and House identity while ensuring access and positive experiences for as many students as possible."

Prof Asimow chairs the committee. The other faculty members on the committee are the MOSH, Professor Geoff Blake (ex-officio), Professor of Biology Marianne Bronner-Fraser, Lecturer of Chemistry Scott Virgil, Professor of Physics Chris Hirata, and Associate Professor of Economics Antonio Rangel. The committee has two RAs, Anna Beck, former Page RA and current 150 S. Chester RA, and Alex Lockwood, current Ruddock RA. The student members of the committee are Tim Black, Daryl Coleman, Sarah Li, Nick Rosa, and Michelle Ton.

The committee's charge is public and is provided below.

## ROTATION COMMITTEE CHARGE

REVIEW  
2009-2010

Currently, incoming Caltech students are allocated accommodation in the various student houses based on a rotation process. At present, "Rotation" takes place during their first week of classes. "Pre-frosh" spend time in each of the eight student houses, including a dinner and lunch at each house. At the end of the week, they submit their preferred houses in rank order. Independently, in each house, the upperclass students discuss the "pre-frosh." Final house assignments combine these considerations and pre-frosh rankings. The overarching goal is to ensure compatibility between houses and their residents and, in this way, to make the incoming class as a whole as happy and comfortable as possible.

Rotation, the activities associated with Rotation, and subsequent initiation activities, have caused varying degrees of concern among the Faculty and Administration over the years. This Committee is charged to review all three areas and to make recommendations regarding whether the current process should be discontinued, or continued with the adoption of improvements and safeguards. Specific questions include:

- Is rotation as practiced at Caltech the optimum way to assign incoming

students to the eight houses (including Avery)?

For example, should it be mandatory -- as it is effectively -- for all students to participate in Rotation in order for their rankings to be considered seriously?

What are the perceived disadvantages?

- Which other methods of assigning residential living space might be adopted? Examples include random assignments or administration assignments made to ensure, for example, diversity. The delaying of Rotation until the end of Winter Quarter of the freshman year, as happened at some times in the past could also be considered.

Can Rotation be a welcoming introduction to Caltech and the Houses for the entering students? Concerns include:

What is necessary to ensure that all pre-frosh feel comfortable with the process and the associated events in the Houses?

Can a responsible self-governing student body foresee and prevent Rotation/Initiation activities that violate the sensibilities of the diverse Caltech student population and, in their most extreme forms, also violate Institute policy?

Can this kind of responsible self-government be assured?

The California Tech is obligated, under the ASCIT Bylaws, to publish the minutes of the Board of Directors. The BoD minutes are published as-received (including any errors) and without further abridgment. For unabridged versions of the minutes, consult Laura Conwill, ASCIT Secretary.

The Editors include minutes from IHC meetings, excerpts from the ARC's meetings, and other announcements voluntarily as a service to the community.

## BUILD-A-BURGER AT THE COUNTER

by Andrew Freddo and Dannah Almasco

Grade:  
B+Walking Time:  
20 minutesPrice Range:  
\$\$Contact Info:  
(626) 440-1008  
www.thecounterburger.comGo here to...  
build your own gourmet  
burger.

Adjacent to Green Street Restaurant, The Counter was recently opened. We had heard from many sources about the build-your-own burgers and were interested in seeing how everything came together. We stopped by for lunch on Halloween, and all of the servers were dressed up, which definitely lightened the mood and made it a fun atmosphere! At first we were a bit overwhelmed by the amount of choices, but with the help of our server we settled on a Build-Your-Own Burger (\$11.75) and the Counter Burger (\$10.50). We also shared a Fifty-Fifty Fries (\$5.25).

When we first sat down, we each got a clipboard and pencil to allow us to choose ingredients to customize our burger – it almost felt like a pop quiz! In building the burger, you have an amazing amount of choices. You can choose from four meats (or veggie), 10 cheeses, 28 toppings, and 18 sauces. The pricing depends on how big your burger is and if you get more toppings or cheeses than is included. These begin at \$8.50 for a 1/3 lb one. If you're not good at making decisions, this is not what you should order, but instead go for one of their pre-made selections (just like Dannah did). The burger itself was cooked well-done upon request, but was still juicy. The ingredients were fresh and delicious, and fortunately they worked well together. If you want to recreate this concoction, order Tillamook Cheddar, black olives, jalapeños, bacon, corn salsa, and Dijon balsamic sauce.

For those with decision paralysis, The Counter offers seven signature burgers from which to choose. We sampled the Counter Burger, and when it came out we were shocked that the ingredients were stacked so high! This burger had provolone, lettuce, tomato, fried onion (a bit too much), sautéed mushrooms (a delicious addition), and a sun-dried tomato vinaigrette (not really necessary). It was really difficult to even get a good bite, and there was no elegant way to go about eating it. The burger was a bit rarer than usual, which is because all of their burgers are normally served medium unless otherwise requested.

The Fifty-Fifty was a perfect compromise for us, since Andrew likes sweet potato fries and Dannah likes regular fries. You could also substitute onion rings if you'd prefer. The fries were crunchy and not at all greasy. The regular fries were spiced well, and the sweet potato fries were delicious even to those who don't normally like them. Definitely a good compliment to the burgers!

So when a burger craving sets in, head over to The Counter to be creative and create your own burger. It's a bit pricier than normal, but the ingredients and service make up for it. The Counter is definitely a delicious spot to fill you up and you never have to get the same burger twice! By our quick calculations, you can order about  $10^7$  combinations, so get cracking!

## ASCIT Board of Directors Meeting – Minutes

November 5, 2009

**Officers Present:** Anthony Chong, Andrey Poletayev, Pallavi Gunalan, Nadia Iqbal, Michael Maseda, Laura Conwill  
**Officers Absent:** Maral Mazrooei

**Call to order:** 10:34 PM

**President's Report:** Rescheduling meetings isn't fun. Please do not miss meetings.

**Officer Reports:**

- **V.P. of Academic Affairs (ARC Chair):** Andrey and the ARC took care of course complaints. There's a Student-Faculty Lunch next week. There is a subcommittee working on making a French minor!
- **V.P. of Nonacademic Affairs (IHC Chair):** Pallavi and Tim will write a couple of articles for the Tech on the rotation committee, Prefrosh Weekend, and murals. Rotation committee members are: Paul Asimow (chair), Marianne Bronner-Fraser, Chris Hirata, Geoff Blake, Antonio Rangel, Scott Virgil, Anna Beck, Alex Lockwood, Nick Rosa, Daryl Coleman, Tim Black, Sarah Li, and Michelle Ton. The mural ban is still on, and is estimated to be resolved by the end of this term or beginning of next term. Until then, only solid-colored murals are allowed. Talk to Peter Daily or Tom Mannion if you have any issues.
- **Operations Director:** Tom got a hold of the publisher guy for the Big T! Tom and Mike will meet with him on Friday the 13<sup>th</sup>. Mike is meeting with the librarians about putting synopses on the leisure reading books. Finally, Mike met with Rob Hunter about putting a Google-maps based restaurant map of Pasadena on donut.
- **Social Director:** Nadia met with Tom on Monday and talked to the booking agency about concert details. Everything is rolling. There will be a barbeque in the mid-afternoon! The BoD will be there bright and early on Saturday to help managing volunteers. If you would like to volunteer at the concert and get a free T-shirt, touch the band's equipment, and get lunch and dinner free, contact Nadia Iqbal at niqbal9@caltech.edu.
- **Secretary:** Laura realized that a key component of a flowchat is flow. She will re-design the ASCIT flowchart accordingly.
- **Treasurer:** Club funding checks from the fall are being distributed.
- **Scheduling:** Midnight donuts will be Wednesday, November 18. The BoD dinner at Lloyd is on Monday. Everyone should be there.

**Meeting adjourned:** 11:07 pm

Submitted by Laura Conwill  
ASCIT Secretary

## Intellectual Creativity 5

by Brian Merlob

Many of you have just finished taking your midterms, and so I thought this was a perfect time to ask:

### What's the purpose of testing?

Traditionally, tests are used as assessment devices to measure what you know. But any sentence that starts with "traditionally" foreshadows something "new".

Here, it foreshadows that tests can be used to do more than just assess knowledge –tests can actually enhance understanding. This phenomenon is known as the testing effect, and the basic idea is so old, it's not the subject of the article. Rather, I'd like to discuss its extensions: "self-questioning" and the benefit of pretests.

But first, a pretest: Are pretests beneficial to learning?

When you study, do you test yourself? Why? According to Kornell and Bjork (2007), 91% of undergraduates report testing themselves, doing so "to figure out how well I have learned the information I'm studying." Less than a fifth (18%) reported doing so as a learning event.

Yet "new" research suggests that testing is more effective than further study in retention of tested information. And this includes self-questioning. What does that mean? It means instead of reading Apostol for two hours (periodically nodding off), you should do the exercises at the end of the chapter. It means that if you fail a midterm and review your mistakes, then you might be learning the material as well as your higher-scoring peers.

But it also means that professors should be test-

ing us more ... in class, ungraded, and before teaching the material needed to solve the problems. While you're expected to get more than 95% of the questions wrong, the time "wasted" taking the pretest is made up by the enhancement in understanding of tested material in a statistically significant way. (Richland, Kornell & Kao)

But I'd like to apply this further. What is the end-goal of a Caltech education? It's to learn the material and analytical thinking necessary for meaningful interdisciplinary research.

So are you failing this end-goal every time you get a poor grade? No, by the information presented above, poor grades don't necessarily imply that you haven't learned the material.

Then what do they mean? Well, if you don't check over your mistakes, then it probably does imply that you haven't learned the material, especially if you have an "I no longer care about that class" attitude. But if you do take the effort to revisit that annoying midterm and work over the answers, then you might be learning the material after all, and I believe that should be reflected in your grades, not only because your grades should be a reflection of your knowledge and analytic ability, but also because it would be a great motivational tool!

Additionally, increasing the availability of optional tests would also be inferred as beneficial because students could both assess their understanding and learn from their mistakes.

As always, my ideas are far from perfect, but I've thought about them for a long time, so I'd love any commentary you'd be willing to give - email me anytime! (merlob@caltech.edu)

## An Education Worth Its Money

by Faith Shuker-Haines

"An Education" seems like a story we've heard before. A very smart girl comes from an uptight family, and they push her and push her to study and be perfect and play the cello and get into college. Until she meets a handsome man who sees through that shell and wants to show her all the joys of the world.

The problem: he's twice her age.

It sounds like a cliché plot, and thus, like a relatively boring movie, but it's not.

Mostly because "An Education" realizes that this is a complicated story. It would be easy to make a movie in which a sad lonely girl is shown the light in life by a man who calls her beautiful and brings her confidence, and then they fall in love.

And it would also be easy to make a movie in which some creeper starts hitting on this innocent child and he corrupts her and steals her life away. And the thing is, both of those are true. They're almost equally true. And the movie doesn't pick one. He does steal her innocence, and he does bring her joy, and the movie lets us be confused.

Peter Sarsgaard, as the man in question, is perfect in that he is so charming and perfect and smart. He is the man of anyone's dreams. But, watching him, you can't not be suspicious.

Where does his money come from? Why is he

taking such an interest in this girl?

Just when you think he's sketchy, he throws you for a loop, convincing you he is just a lonely guy who really does love her.

And then you start to distrust him again. It's so well-crafted that it never lets you get comfortable with your take on the story.

And, to me, that seems right. Because growing up is about losing innocence, and it's about learning to live, and a movie

about coming into adulthood has to be both those things.

The setting of the movie helps to accentuate this by being set in the early sixties, just as the world was starting to want to break free, but when it hadn't quite figured out how to get rid of the fifties yet. It's a lovely little analogy that really added to the movie, I think.

"An Education" is almost perfect.

I say "almost" because the ending was terrible. What I loved was that they never chose between a tragic fall and a glorious ascension.

And then, in the last ten minutes of the movie, they chose and it was really disappointing. So if you see this movie, wait until Sally Hawkins (she's the girl from Happy-Go-Lucky, if anyone's seen that) has shown up, then leave. You will have seen one of the best movies of the year.

"... almost perfect."

## Cuts Made to Preserve Need-Based Aid

MERIT AWARDS, FROM PAGE 1

them with competitive financial aid," said O'Neal, "We need to protect our core of providing aid without the gap." The gap is the difference between a family's need and the amount that the school can provide for the family.

"The scholarship serves as good incentive to engage students in extracurricular pursuits, not just academics, but being one of the top schools in providing financial aid, we need to uphold that credibility," said Pradeep Ramesh, an undergraduate junior.

The last round of upperclassmen merit scholarship was awarded last spring on a small budget due

to the decrease in endowment. "We already had a much lower budget than other years," said O'Neal, "We still award the students, but it was more for recognition than providing large sums of scholarship."

The decision to rid the scholarship was made last winter, but was not made public because the scholarship was still available for that year. Following the termination of the Axeliner and Presidential scholarship, the ending of the Upperclassmen Merit Scholarship marks the end of any type of Caltech merit scholarships.

## Small Changes Lead to Significant Impact

AFRICA, FROM PAGE 1

of education," remarked Duff.

Her organization has united Christian and Muslim leaders in the Nigeria Interfaith Action Association (NIFAA), a faith community initiative to help distribute bed nets and to educate the populace about transmission and prevention of malaria. Duff continues to work in the community and aspires to personally bring hope for a healthy future into African lives.

The symposium then moved from malaria and HIV to obstetrical hemorrhage and innovations to improve survival. Bleeding during pregnancy and labor accounts for a quarter of all maternal deaths. The problem is particularly severe in Africa where women face all kinds of problems in the search for treatment: transportation and cultural boundaries are only a few of the troubles. Elizabeth Butrick, of UCSF, introduced a recently developed garment to be worn on the torso and legs during bleeding episodes. The non-pneumatic anti-shock garment (NASG) reduces blood loss and delays the onset of shock by shunting blood from appendages towards the

vital organs. Butrick cited a recent trial which showed that using the garment during bleeding episodes reduced maternal mortality by sixty-eight percent compared to using standard care alone. The device has already been cleared for use throughout Nigeria, but Butrick warned, "[the garment] does not replace other care." Nonetheless, it allows women to survive delays in obtaining the required and appropriate medical attention.

Academy Award winner Forest Whitaker closed the symposium with an inspiring call to action that brought audience to its feet. His recent trip to Nigeria was an "eye-opening experience" that caused him to rethink his abilities to impact the world and create a healthier society. In his powerful and commanding voice, he challenged the audience to help eradicate malaria from Africa. While he acknowledged the magnitude of what he was asking from a handful of people, he concluded with words of strength: "I ask you one thing. Never lose faith. We can't flip out right now."

## Chess, a new weekly column

By Michael Kaye

CHESS CLUB PRESIDENT

Every year there are a number of tournaments to which only the very strongest chess players in the world are invited. At the recent Nanjing Pearl Spring tournament, Magnus Carlsen (18 years old) dominated, winning six of his ten games and drawing the other four. This is one of the most impressive tournament showings ever, giving Carlsen a performance rating for the tournament of 3002 (that's really high). When the November FIDE ratings list was released, he became the fifth player ever to be rated over 2800, joining Garry Kasparov, Vladimir Kramnik, Viswanathan Anand and Veselin Topalov. Carlsen has recently begun studying with Kasparov (possibly the greatest player ever and famous for his matches against Deep Blue), and given his age and rate of improvement, it seems likely he may soon take over as world chess champion.

Chess in the United States has also been exciting recently. The US Chess League (established in 2005) is composed of 14 teams from around the country. This week was the last of the regular season. There are two divisions which have 4 playoff teams each. In the Eastern division, the New Jersey Knockouts, Boston Blitz, Baltimore Kingfishers, and New York Knights have earned playoff berths. In the Western division the four playoff teams will be the Seattle Sluggers, Arizona Scorpions, San Francisco Mechanics, and Miami Sharks.

Our first "Game of the Week" is from a recent US Chess League match between the Boston Blitz and the Miami Sharks. White is Eugene Perelshteyn (rating 2628) and Black is Bruci Lopez (rating 2480).

1.d4 Nf6 2.c4 g6 3.Nc3 Bg7 4.e4 d6 5.Nf3 0-0 6.Be2

This is the starting position for the Classical Variation of the King's Indian Defense, an opening I play myself as black. The usual plan is to play e5, using a pawn to control some of the all important center of the board. After this black will move the f6 knight and play f5 as the beginning of an attack on the kingside. This doesn't work out too well in the current game.

e5 7.Be3 h6 8.d5 Ng4 9.Bd2 f5 10.h3 Nf6 11.exf5 gxf5 12.g3 Na6 13.Qc1 Kh7 14.Qc2 e6 15.Nh4 e4 16.0-0 cxd5 17.Nxd5 Nxd5 18.cxd5 Nc7

At this point the c-file has opened (this means there are no pawns on it), and both sides will seek to control it with their major pieces (rooks and queen). Rooks perform well on open files because without pawns in the way, they may eventually penetrate deep into the enemy's position and attack pawns or the king.

19.Qb3 Be5 20.Rac1 b6 21.Bh5 Rf6 22.Bc3

This move allows white to trade his dark squared bishop for the black's; this is desirable since the black bishop influences both sides of the board from its post in the center.

Bxc3 23.Rxc3 Bb7 24.Rd1 Na6 25.Qc2 Qe7 26.Ng2 Qd7 27.Nf4 Rc8 28.a3 Rc7 29.b4 Qc8 30.Rc1 Rxc3 31.Qxc3 Qxc3 32.Rxc3 Rf8 33.Bg6+ Kg8

At this point white controls the c file and black's knight on a6 is tied down to its square because it must prevent white's rook from reaching c7 (a white rook on c7 would attack the b7 bishop and then begin devouring pawns). There is a chess maxim that "a knight on the rim is dim;" in this case the knight only controls four squares instead of the eight it would influence from the center. Black's woes are worsened

by the fact that his king is vulnerable and his rook is tied down to defense of the f5 pawn.

34.Ne6!

White has found a way to make a decisive advantage out of his superior position. Now black will have little choice but to capture white's d5 pawn, which will allow white's rook to enter the black position and begin capturing pawns, threatening pieces, and harrying the black king.

Rf6 35.Bh5 Bxd5 36.Rc8+ Kh7 37.Nf4 Bf7 38.Rf8 Kg7 39.Ra8 Bc4 40.Rxa7+ Kg8 41.Ra8+ Rf8 42.Ra7 Rc8 43.Bg6 Rf8?

Black wishes to avoid losing the f pawn, but this allows mate in two. Black was losing at this point anyway as the rook on the seventh rank was ready to gobble more pawns and black's f pawn was about to fall to the bishop.

44.Bh7+ Black resigns (44... Kh8 45.Ng6 would be mate) 1-0

The Caltech chess club meets on Friday nights at 8pm in Page dining hall. Players of all levels are welcome; we are happy to teach. The next tournament we hope to attend as a group is the 2009 American Open, which runs from November 26-29.

Problem of the week  
Contributed by Rob Rosenberg



White to move and mate in 5



Write or take pictures  
when you can. We pay  
up to \$30 for news  
articles.

We're flexible.

Join us Monday or Friday at  
noon for free pizza on the Olive  
Walk, or send [tech@caltech.edu](mailto:tech@caltech.edu)  
an email if you're interested in  
being a part of the Tech.

## Upcoming Games

**November 13, 2009**

**Men's Water Polo  
vs. TBA @ Claremont  
TBA SCIAC Championships**

**November 13, 2009**

**Men's Water Polo  
vs. Whittier @ Claremont, Calif.  
4:15 PM**

**November 14, 2009**

**Fencing  
at Stanford  
9:00am NCAA West Invitational vs. Stanford,  
Northwestern, UCSD & Detroit-Mercy**

**November 14, 2009**

**Cross Country  
at NCAA Regionals @ Pomona-Pitzer Colleges  
9:00 am**

**November 14, 2009**

**Men's Water Polo  
vs. TBA @ Claremont  
TBA SCIAC Championships**

**November 15, 2009**

**Men's Water Polo  
vs. TBA @ Claremont  
TBA SCIAC Championships**

**November 16, 2009**

**Women's Basketball  
at La Sierra  
7:30 PM**

**November 17, 2009**

**Men's Basketball  
at La Sierra  
8:00 PM**

**November 19, 2009**

**Men's Basketball  
vs. West Coast Baptist  
7:30 PM**

**November 21, 2009**

**Cross Country  
at NCAA Championships @ Cleveland, Ohio  
TBD**

## Rock Paper Scissors: Is it a sport, or is it the *only* sport?

**By Tim Black**

UNDERGRADUATE

Caltech graduates are some of the brightest people in the world; they work hard in their classes, do extracurricular activities, and end up with jobs they love, often making a lot of money, and overall having a successful life. But other than preparing students for life both academically and non-academically, how well does Caltech prepare students for the rest of their endeavors? Preliminary studies suggest that Caltech graduates are not prepared for a situation that they will have to deal with countless times in the rest of their life. Caltech students, during their time here, do not improve their skills at Rock Paper Scissors.

Sporadic analyses suggest that a Caltech alumnus is not significantly better at Rock Paper Scissors than an alumnus from another university. Despite spending thousands of hours on problem sets, Caltech students seem to completely ignore this segment of their life. When it comes time to face off for a job offer or an election tie-breaker, Caltech graduates are unprepared, winning only about a third of face-offs, and tying another third.

Not only are Caltech students unexceptional in their Rock Paper Scissors skills, but many students are not interested in improving their skills. The Master Of Student Houses, Prof. Geoffrey Blake had one word to describe the attitude towards Rock Paper Scissors in the houses: "Apathy." Matthew Maurer, a Senior in Blacker Hovse, said "I don't have any passion for Rock Paper Scissors.

I never did." They don't see the "point" of the sport, or they think that it's too simple or "below" them. Some students do not consider RPS as a sport at all. Pallavi Gunalan, a junior in Ruddock and Dabney, attributes it to "Caltech Syndrome." She said, "They [new students] come in energized and wanting to play Rock Paper Scissors, and they leave never wanting to do it again. It's a shame."

To combat this attitude towards Rock Paper Scissors, a Caltech Rock Paper Scissors Team was formed. Their goals are two-fold; they aim to improve students' Rock Paper Scissors skills, and they also aim to make Rock Paper Scissors a more accepted as a sport worth devoting time to. They hope that someday RPS will be treated the same as other top tier sports like basketball, football, and soccer-golf.

The Caltech Rock Paper Scissors Team holds practices once a term to improve students' skills. The team is open to any undergraduate, whether they just want to learn more about the sport, or they want to take their play to the professional level. This term's practice will be this Saturday, November 14, at 1 pm on the Olive Walk. The team is still accepting new players, and nobody is cut from the team, so anyone who would like to play is welcome to show up.

Despite its lofty and noble goals, the RPS team has already



faced setbacks. The team applied for funding from ASCIT, the Caltech organization responsible for allocating thousands of dollars in club funding. The team had a modest proposal, but was coldly turned down for funding and was provided no explanation for the decision. Caltech student leaders have yet to understand the importance of the sport. Since the team was denied funding, the team's only possession is a refrigerator magnet, a donation from Lorrie Yamazaki. The magnet reads "Rock is dead. Long live paper and scissors!" (Note: the views expressed on this refrigerator magnet, whether explicit or implied, do not necessarily represent those of the Caltech Rock Paper Scissors Team). The team has no money to purchase strategy guides, enter into competitions, provide food at its practices, or hire a professional coach. Players have to pay for their own jerseys, costing upwards of \$6 apiece. To level the field for players of different economic backgrounds, purchasing a jersey is optional.

The team is accepting new players. Interested players are invited to come to the practice this Saturday at 1 pm on the Olive Walk. No experience is required.



## The Weekly Scoreboard

**November 3, 2009**

**Men's Soccer vs. La Sierra W (2-0)  
Women's Volleyball vs. Cal Lutheran L (3-0)**

**November 4, 2009**

**Men's Water Polo vs. Cal Lutheran L (12-2)**

**November 5, 2009**

**Men's Soccer vs. SOKA University of America L (2-1)**

**November 8, 2009**

**Men's Water Polo vs. La Verne L (17-7)**

Interested in Seeing Real Sports  
Coverage?

Come Write for The Tech.

## Dr. Smart: The Comeback Tour

Dear Dr. Smart,  
People keep talking about things going on around Caltech, but I don't know what they're talking about. How do they know what's happening? Why don't we have an informative source of news? Am I missing something? Also how come the paper sucks?  
Sincerely, a confused Techer

Dear Techer,  
Normally I would call you a slow-witted moron for trying to understand things beyond your comprehension. Unfortunately, your words are hitting close to home. You see, *The California Tech*, our esteemed newspaper, is severely understaffed.

Apparently they don't even have reporters to go around getting news from important people like Chameau and Geoffrey Blake. If only we had Jon Stewart's Best F\*\*\*ing News Team Ever. Alas, instead we are given Chris Kennelly and a ragtag bunch of clowns at typewriters and drawing boards. Actually, scratch that, it's just him and a couple humorists. Even the IHC minutes don't give us any useful information, and that's what they refer us to if we ever have questions. This is outrageous and unacceptable and it can only be solved by each and every one of us doing our part to make the Tech a better paper.

Dear Dr. Smart,  
I want to write for *The California Tech* but that's under the control of ASCIT, an organization that I do not trust. What should I do?  
Yours faithfully, the majority of CIT

Obviously you must man up and take one for the team. A revolution cannot start with one man. The recent bylaw amendment is the first step on the long and winding road to freedom, paved with icing and marked with donuts at every intersection. The first thing you must do is realize that the best way to take down an evil

and corrupt organization is to infiltrate it. If you're too much of a wimp to do this at this point, try to practice your guerilla tactics. Next time you go turn in a set at Sloan, do it commando style. Get prone on the ground and crawl as if you're under fire from the evil strafing fire of the ASCIT trench guns. When security starts questioning you, you scream to their face "I WILL NOT TALK!" until you get waterboarded. Remember: it's not a form of torture! It is sad to think that this kind of content ends up in *The Tech*, so the sooner start writing for *The Tech*, the less we have to deal with mindless drivel inspired by Call

of Duty, which on an unrelated note is far less addictive than Crack of WarCrack.  
The fact that the paper resorts to this is a reflection on you people. The moral of the story is your hatred for ASCIT does not warrant a complete lack of content in our paper. Also, if you complain about *The Tech*, you are obligated to write for it, or else you shall be forever labeled a nub chode. Maybe someday, when the paper actually has a news staff contributing, we won't have to be kept in the dark about any issues that may affect undergraduate life.

## Ask The Frosh

I'm a UCC and one of the frosh in my group keeps annoying me with questions. What should I do?

We hate to burst your bubble, but if a frosh keeps asking you questions, it probably means you aren't giving him adequate answers the first time around. The best way to avoid getting asked questions is to provide the answers before the question even becomes an issue. You should try being a better UCC. If the questions continue to annoy you, you really need to change your perspective. Try appreciating the enthusiasm and naïveté of your frosh. If you still just can't, you shouldn't be a UCC.

I want to write for *The California Tech* but that's under the control of ASCIT, an organization that I do not trust. What should I do?

Good for you! A healthy amount of paranoia keeps the evil villain away! Or does it...? All joking aside, the best way to get over your distrust of ASCIT is to become ASCIT president and designate the BoD as your minions. While you're working your way up the ASCIT ladder, you should write under a pseudonym so that [censored by ASCIT for the good of the readers.]

I get bored easily. I am considering *World of Warcraft*

but everyone says it's really addictive. So there must be a better way. How should I spend my time?

How could you possibly be bored? There's so much to do at Caltech! You could write for the *California Tech*, or frolic around campus while whistling, or put on a black cape and act like a super hero, or bake cookies for your favorite frosh, or set up traps for unsuspecting upperclassmen, or go mammoth hunting! Or, if you're tall, you could join the volleyball team! And if you still find yourself feeling bored, there are so many interesting and varied classes to take here: we've

heard signing up for somewhere in the range of 164 units prevents boredom! Be careful, though; going to class is addictive, too.

I am Asian and I never get girls. Why is that?

*Frosh note: This is a dumb question.* You're probably just going about it the wrong way. Girls don't like: nice people, personal space, alone time, girls' nights, flowers, chocolate, normal conversation, or rubber ducks. They do love it when you follow them around, but won't tell them that you like them. They also like when you sleep in the hall outside their rooms. It probably has

nothing to do with being Asian; you just need to rethink your strategy, dude.

I think I'm pregnant! I'm only a sophomore! I can't have a baby! And to make matters worse, I have no time to deal with this problem because I have no time to go to a Planned Parenthood place what with ACM 95 sets and all. What are my options?

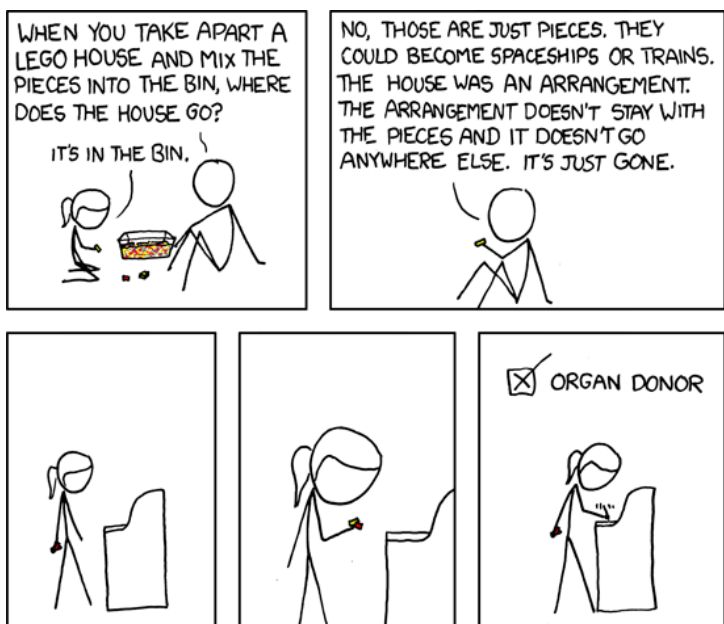
Denial is the best option. If you simply ignore the fact that you're pregnant, eventually your problem will just disappear. At least, that's our experience with fire alarms

### APPLES AND ORANGES

BY REBECCA LAWLER



XKCD by Randall Monroe



The California Tech  
Caltech 40-58  
Pasadena, CA 91125