

THE CALIFORNIA TECH



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Another Caltech MacArthur Genius

By Chris Zheng

STAFF WRITER

Just last week, John O. Dabiri, Caltech's Associate Professor of Aeronautics and Bioengineering, was awarded the MacArthur "Genius" Grant, a prestigious \$500,000 award paid over the next five years.

Dabiri has been researching the 500 million year-old jellyfish, a creature with a simple structure that has been able to efficiently create vortices for self-propulsion.

To see the vortices, Dabiri's team can simplistically inject dye right into the umbrella of the jellyfish and observe the water swirling, or they can scatter particulates into the water and use lasers to measure their displacements. One of his graduate students, Kakani Young, developed much of the equipment they use.

Much like those created in jellyfish locomotion, as blood passes the heart valve, it creates a vortex ring. Dabiri uses this research to develop stronger and more efficient mechanical valves.

The U. S. Navy is also interested in using his research to translate studies on jellyfish motion into more energy efficient underwater vehicles. Instead of one huge submarine, he and his team are designing another system with perhaps tens of thousands of smaller, autonomous machines.

"To do that on a smaller scale," explained Dabiri, "you need to be more energy efficient because you don't have as much space for

batteries or fuel."

This system of grouping many machines together also stems from studying schools of fish. When schools of fish swim together, their tails create vortex rings that carry each other along, or they can whip other fish away.

Dabiri applies this fish schooling to new wind turbine models as well. His new prototypes are a complete overhaul of the traditional windmill design: blades rotate around a vertical axis, and the turbines are strategically placed around each other so that they interact with the wakes and the turbulence of each other.

They create ten times more power per acre than the lone windmill design, despite being smaller. They are optimal for places with inconstant wind, like urban areas.

"And," added Dabiri, "these don't kill birds."

Dabiri came into the obscure world of jellyfish by chance. Before his senior year at Princeton, where he got his B.S.E. in Mechanical and Aerospace Engineering, he applied for a SURF at Caltech in Professor Morteza Gharib's lab, hoping to work on propulsion problems like helicopters, jets, and rockets.

Much to his surprise, when he arrived at the lab, Gharib put him in the Long Beach Aquarium, now the Aquarium of the Pacific, observing fish. This is when he discovered the usefulness of jellyfish.

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According to Richard Murray, Thomas E. and Doris Everhart Professor of Control & Dynamical Systems and Bioengineering, Marsden sponsored numerous SURF projects and senior theses, including many joint projects with JFL.

"Professor Marsden was a great [research] advisor. He gave me a tremendous amount of freedom to work on what I was interested in and continued to help me along the way," said Daniel Beylkin, Caltech 2010 alumnus and current graduate student in Math at Yale University, who conducted three projects under Marsden's advisorship.

Beylkin conducted two summer SURFs and a senior thesis in Marsden's research group. He worked on a variety of research

Caltech's incoming freshmen excel at pranking

By Sarah Marzen

COPY EDITOR

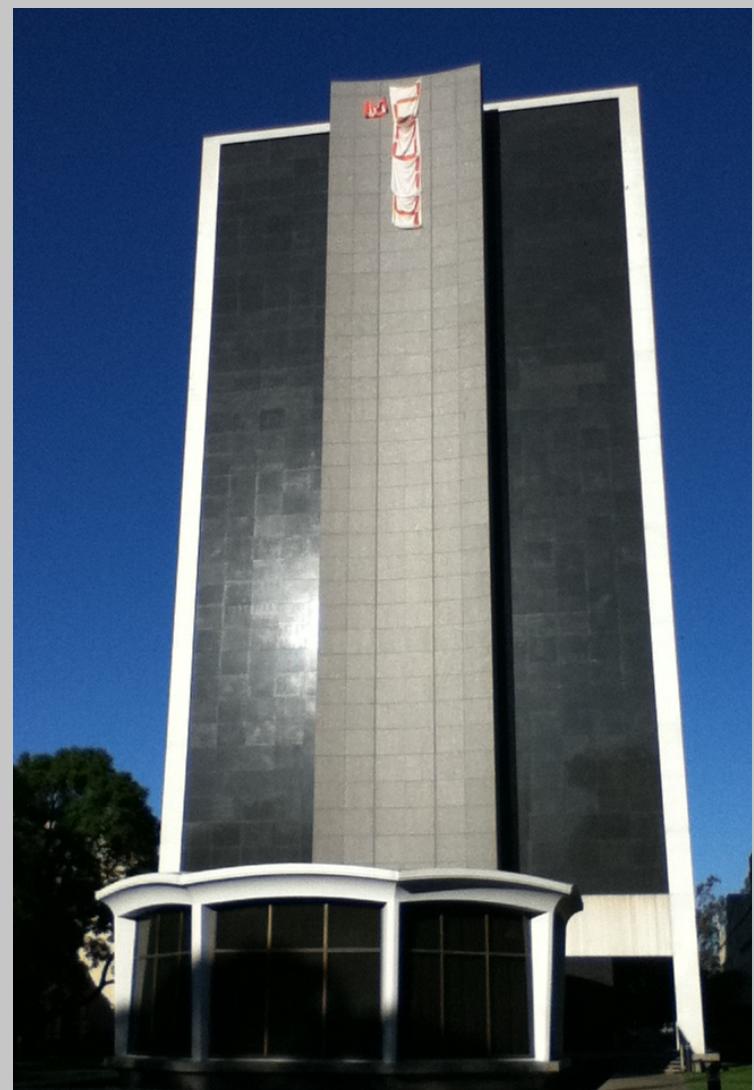
MIT's recent attempt to prank Caltech's prefrosh orientation may have failed, but Caltech's incoming freshman class has already succeeded in pulling three pranks on Caltech's campus with at least one more to come.

The freshman pranksters, self-titled "Order of the Royal Techers" or ORT, have successfully pulled three out of four planned pranks so far. The ORT transformed the freshman class picture into a black headband, black clothing, ninja-themed photo; hanging a large 2014 banner from Millikan; and delivering a giftwrapped "frosh plague" made out of Dabney's playpen balls to the front of Beckman Auditorium.

The fourth planned prank aimed at turning the Olive Walk into a Pacman Maze on the day of Caltech's club fair, complete with human ghosts and a human cardboard Pacman running through a maze marked by orange security tape. The pranksters had the costumes and security tape maze prepared, but they hadn't anticipated that day's record high temperature of 113 degrees Fahrenheit.

"We weren't running around in Pacman costumes because we were sane," said Samantha Piszkiewicz, one of ORT's leaders. "Plus, the enthusiastic people had been up all night the night before" carrying out the Millikan banner and frosh plague pranks.

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Photos from Musab Jilani

Caltech's ORT banner (small orange banner on left) hung alongside a 2014 banner (rightmost banner) for nearly half a week before the banner got tangled and taken down. According to prank leader Musab Jilani, the banner was made and hung between midnight and 4 A.M., with the help of Caltech Security. Jilani's Facebook status the next day read, "The banner of the Order of the Royal Tech flies higher than any other in Pasadena."

Malachite Professor Jerry Marsden Passes Away

By Tina Ding

EDITOR-IN-CHIEF

Jerrold E. Marsden, Carl F. Braun Professor of Engineering Control and Dynamical Systems & Applied and Computational Mathematics, passed away after a long battle with prostate cancer on September 21, 2010 at the age of 68. Marsden is well-known to undergraduates for teaching the Core course, Ma1c, Multivariable Calculus (Practical Track). He has taught the course for over ten years.

Marsden was a strong supporter of undergraduate students. He wrote six undergraduate textbooks and "was always very encouraging to undergraduates interested in research," said his daughter Alison Marsden.

including the Titan project and autonomous navigation of a balloon using wind fields.

"It was an incredible opportunity," said Beylkin. "I don't think I'd be at Yale without his influence on my undergraduate education. For that, I'm indebted to him."

A website of remembrances called "In Memory of Jerrold E. Marsden" has been made to honor Marsden's work and contributions. One response from Professor Melvin Leok at University of California, San Diego, mentioned Marsden's influence in Leok's undergraduate career.

"You are an academic father figure to me, and who I am as a

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Southmaster keys no longer issued

By Joel Nikolaus

STAFF WRITER

The South Master, a key that almost all Caltech undergraduates have had for the last thirty years, is one step closer to obsolescence.

This fall the Housing Office decided to discontinue the use of the South Master in the Houses and, to the surprise of many returning students, finally ceased authorizing new copies of the key. Rather than replacing the key, the rooms currently under the South Master, mostly rooms in the Student Activities Center (SAC), will be taken off locks entirely.

"There are seven or eight rooms in the SAC that required the South Master that will no longer require keys," said Peter Daily, Assistant

Vice President for Housing and Dining. "Those rooms will now be like common rooms."

Most of the locks in the SAC were changed by the Lock Shop this last week. Some of the custodial closets and other rooms in the houses that are still on the South Master will be changed in the near future. For these rooms, combination locks are one alternative to leaving the rooms completely open.

"The South Master doesn't do anything anymore," said Daily, to explain the change. With card-swipe required to get into the houses and the fact that all students essentially already had access to the rooms, there was no purpose in keeping them locked.

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NEWS

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THE CALIFORNIA TECH

More prankering to come from frosh

PRANKS, from pg. 1

How did Caltech's incoming freshman class manage to organize four pranks before they had even met one another?

The answer: Facebook. Jesse Salomon, another leader of the ORT, was "getting antsy" in early August, when all of his friends were leaving for college.

"So I looked up Caltech on Wikipedia and started reading all the prank traditions," said Salomon. "And I started thinking, it'd be a great idea to have a freshman prank.... what's the best way to coordinate that? Facebook."

He made a secret Facebook group exclusively for the Caltech class of 2014. Interested members became administrators so that they could, in turn, invite their friends to the secret group. Now, the prank organizers have an email list with all the freshmen emails in addition to the Facebook group, taken from the Caltech Directory. But over the summer, Facebook was the group's main mode of communication.

Collectively, the incoming freshmen developed over a dozen ideas for start-of-year pranks,

and over one hundred members voted on their favorite ideas. A group of prank leaders-- primary organizer "Queen" Connie Wang and leaders Salomon, Piskiewicz, Musab Jilani, Neeli Mishra, Stephanie Reyes, and Genesis Lung -- decided to take on the challenge of leading the five favorite pranks before the end of Rotation.

Several of Caltech's preseason athletes helped scout out the potential pranking areas, plan, and transport supplies, even grabbing hundreds of balls from Dabney's ball pit in order to make models of bacteria for the frosh plague prank. Tom Mannion not only funded the pranks, but also gave the pranksters a de facto all-access pass to campus.

"When we asked if he could fund us, Tom asked if it was under \$1000" said Piskiewicz. In total, the pranks required roughly \$200.

Caltech's Security officers were also more than happy to help out, said Jilani, who led the prank to hold a banner over Millikan. "The best part was that Security was so chill, helping out with the prank, and even giving suggestions for how to make the banner hang straight."

Only one prank remains, the details of which are secret. "It's been postponed because we hit a flood of work," said Piskiewicz. "In the Caltech tradition, we procrastinated. We still need to do this one, and it'll be a damn good one."

Pranking despite a Caltech workload

Even though the first Ma1a set has landed squarely on their shoulders, Caltech's ORT has already begun to consider how they will prank MIT. Their ideas have ranged from the more basic, e.g. hanging a large banner on one of MIT's building, to the more outlandish, including physically moving an MIT building. "We definitely look forward to continuing to prank," said Jilani. ORT member Nathan Baskin agrees, saying that pranking is "sort of part of the Caltech personality."

However, the Caltech workload hit our frosh pranksters soon after their arrival. "After Rotation started, even I didn't want to do anything," said primary organizer



Photo from Bob Paz, bobpaz.com

The first prank involved the most coordination, according to Jesse Salomon, because it required the entire incoming freshmen class to dress up like ninjas for the freshman class picture. Students were encouraged to wear black and prank leaders passed out homemade black cloth headbands the day of.

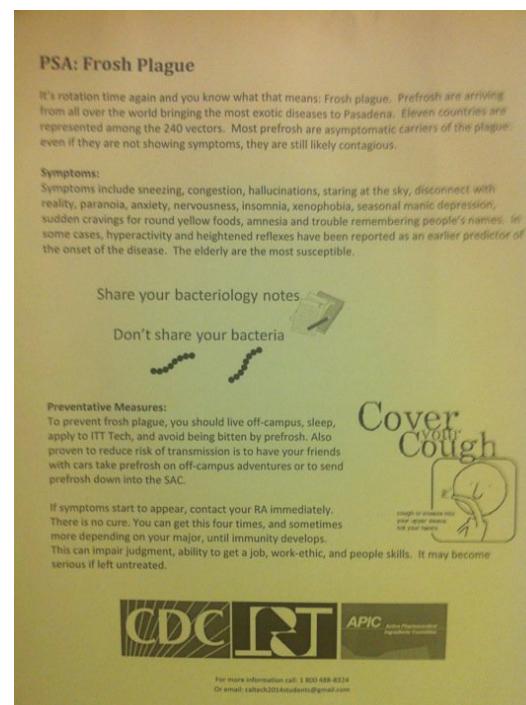


Photo by Sarah Marzen

Originally, the Order of the Royal Techer wanted to giftwrap the Fleming Cannon, but Tom Mannion "ixed" that idea for having too much House affiliation during Rotation, according to the pranksters. Instead, the pranksters, led by Connie Wang, assembled a paper mache of balls from Dabney's ball pit into something symbolizing the bacteria from the frosh plague and placed a gift-wrapped frosh plague at the steps of Beckman Auditorium. The box was removed soon after. The pranksters also made this public service announcement for the frosh plague with hints of pranks to come.

Wang. The benefit to planning pranks in the summer, said the ORT leaders, was that there was nothing better to do, since all their friends had already headed off to college.

Previous organizers of pranks on MIT, including Prank Club leader Jordan Theriot and alumnus Anthony Chong, stress how much

time and effort is involved in pulling off a good prank. Even so, Mannion is hopeful based on the energy of the freshmen class. "It's going to be a great four years of pranking," he said.

MacArthur

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Many undergraduates can remember his colorful talk on jellyfish at their convocation or frosh camp and appreciate his enthusiasm of marine bioengineering and fluid dynamics. He has taught popular classes in both bioengineering (such as BE/Bi 105 – Introduction to Biomechanics) and aeronautics (such as Aeronautics/Bioengineering 242 - Biological Flows: Propulsion).

The MacArthur Foundation awarded Dabiri for not just his breadth of talent and achievements, but also their potential for important future advances and creative work.

Unlike other awardees, Dabiri was notified through a mysterious e-mail, because the MacArthur Foundation got his phone number wrong. He called expecting to be asked to review or help, and was stunned and ecstatic when he was notified that he won.

When asked what he will do with his award, he said, "I'll pray on it, and maybe pay for some swimming lessons."

Marsden

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professor and a mathematician has been shaped in uncountable ways by the privilege I had of working with you," Leok wrote in his remembrance.

Marsden's research is in geometric mechanics, with application to rigid body systems, fluid mechanics, elastic research, plasma physics, and general field theory.

Besides Ma1c, he also taught CDS 140a Introduction to Dy-

Olive Harvest Returns

By Neha Samdaria
STAFF WRITER

Despite being cancelled last year due to campus-wide olive shortages, Caltech's Annual Olive Harvest Festival will be returning this November. This Caltech tradition, which began in 2007, calls upon students, faculty members and administrators for a day of picking and tasting olives which will later be pressed and bottled into Caltech's very own olive oil.

Last year, the harsh weather conditions in spring resulted in an unusually low level of olive production, causing the harvest to be called off. However, this year, the fun returns with new olives to taste and pick from over 80 olive trees around campus. The harvested olives will be sent off to Santa Barbara Olive Company to be used in the production of Caltech's olive oil. The oil will then be sold through the Caltech Bookstore, and the money raised will go towards campus student activities.

According to Tom Mannion, one of the organizers of the event, this year's harvest will commence on the morning of November 5th and will proceed till later in the afternoon. However, unlike in previous years, there will not be a outdoor dinner on the Olive Walk at the end of the day.

Correction:
09-27-10 News Brief on Ma1a:
Professor Ramakrishnan isn't
teaching Ma1a for the first
time. It's the first time he's
emphasizing proofs

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namics and CDS 202 Geometry of Nonlinear Systems.

According to his daughter, Jerry Marsden was "kind and gentle" outside the classroom. "He encouraged my interest in math and science by doing workbooks graphing the weather as a child," she said.

Marsden was diagnosed with prostate cancer twelve years ago, but "it didn't affect his health until about two years ago," said Alison Marsden.

A memorial service in honor of Jerry Marsden's life, work, and contributions to the world will be held in January 2011.

Bedbugs finally Exterminated

By Joel Nikolaus

STAFF WRITER

It may have been years since any of you have used the proverbial saying “don’t let the bedbugs bite,” but it might be time to pull that old saying off the shelf. After a serious infestation that occurred in Fleming last year, Caltech Housing, like many colleges, hotels, and other public places has lately found itself forced to deal with a resurgence of the small and versatile pests.

For students concerned that bedbugs might still be lurking in their room, they need not worry. The infestation in Fleming was dealt with, rooms checked, and the bedbugs purged through chemicals and heat treatment. At several points Housing has brought in dogs. After all of this Peter Daily, Assistant Vice President for Housing and Dining, is confident that the rooms were cleared. Unfortunately, it is not quite that simple.

Though the rooms might have been cleared, that does not entirely mitigate the problem. “Bed bugs are a nationwide crisis... one of the major, major problems across the country,” said Daily. “The occupant normally brings them in on their suitcases from somewhere else,” he said.

To deal with this, Housing is taking a combination of both preventative and reactionary measures, and according to Daily, plans to do “as many proactive things as possible.” This includes, most noticeably, changing the mattresses. Though traditional mattresses were replaced years ago, the current mattresses will also start to be phased out for

a mattress less conducive to the hiding pests.

“The amount of knowledge and types of treatment in the last nine months has dramatically increased. Started off as just being sprayed by an exterminator, to being heat treated, to the later it is treating with the vapor strips,” said Daily.

These improved understanding of bedbugs should allow Housing to deal more effectively with the problem. “I think we are in good shape,” said Daily. “We react when we hear from somebody... [and] there is an exterminator here nearly 100% of the time.”

All of this on some level still depends on the ability to react quickly to infestations. That, of course, also depends on the students to report the incidents to housing. If the reports are made quickly the incidents can be kept relatively isolated, according to Daily. However, bedbugs multiply exponentially and if students wait months like the students in Fleming it becomes a more serious incident.

Though predominantly on the East Coast in the United States, bed bugs are a national and worldwide problem. Before present times, their presence decreased since in the United States after the 1930’s, but has been on the rise again since the 1980’s. Explanations for this increase include an increase in travel and the decreased use of such pesticides as DDT.

Bed bugs usually bite at between four and five in the morning. During the day they hide in whatever crevices, holes, and other dark places are available. They can last up to ten months without food.

Alumni Association changes programs and funding deadline

By Sarah Marzen

COPY EDITOR

As the new school year rolls around, the Alumni Association (AA) is adding a few new programs under the leadership of interim director Denise Nelson Nash.

New AA-run programs include monthly lunches between students and alumni in all different industries and a free professional development program (e.g., resume building) for ten alumni. The monthly lunches are being reinstated after the AA office has recovered from the effects of staffing reductions last year due

to budget cuts.

The free professional development program has a market price of roughly \$150 per hour, which amounts to a market price of \$600 per alumni participant. According to Nash, the recent pilot program was successful, and the program will be offered starting in October or November in earnest.

Additionally, the \$5,000 AA fund for Caltech student clubs is moving from a set to a rolling funding deadline, which may affect the strategy for funding decisions when more clubs apply. However, this year, the fund only had four requests from clubs so far.

On a smaller scale, Caltech freshmen now receive an AA blanket as part of their welcome package, and parents of freshmen were invited to an AA-hosted lunch at the alumni house. There has also been an increase in the number of regional AA events, hosted and run by alumni in that region rather than the AA staff.

According to Nash, the Alumni Board should have identified a permanent Alumni Association Director to replace interim Director Nash around February of this year.

For more information on programs offered by AA, see <http://alumni.caltech.edu/>.

Techers Challenge Russian Chess Master

By Rob Rosenberg

CONTRIBUTING WRITER

On Friday night, the Caltech Chess Club welcomed Andrey Terekhov, a chess master from Russia, to play on fifteen boards at once in Chandler Cafe. Terekhov, a software developer for Microsoft Ukraine, attained the rank of FIDE (International Chess Federation) Master as a teenager, and still maintains a rating of 2302 despite being less active in the game than he once was.

In the 17 games played over nearly four hours, only Civil Engineering postdoc Kostia Zuev, a

friend of the master's who invited him to give the simul, was able to defeat him. Freshman Stone Jiang's challenge concluded in a draw as a crowd of spectators watched over the night's final game.

The fifteen players who lost to FM Terekhov included the club's former president Michael Kaye, current president Rob Rosenberg, many returning club members, and a promising crop of freshmen. Applied Physics Professor Noel Corngold also participated as his wife looked on.

Andrey's exceptional focus and politeness ensured the success of

chess club's most heavily attended event in recent years. While the chess club has begun the year with three simultaneous exhibitions, all members of the Caltech Community are invited to the regular meetings which feature everything from friendly blitz to studying grandmaster games.

Visit <http://www.its.caltech.edu/~citchess/>, email rosenberg@caltech.edu, or simply show up to the Page House Dining Hall on Fridays at 8pm.

Southmaster

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Though Housing only recently decided to change the locks in the houses, the Lock Shop was already retiring the South Master from other buildings. The largest of these remaining buildings, Bridge, is scheduled to be switched to a Medeco within the next several weeks. Other buildings will follow, and by the end of the term all the buildings on campus should be entirely off the South Master.

The South Master has long provided students with a means of accessing academic buildings after hours. Though the locks will change, ways should be made available for students to get access to specific buildings that will be worked out over this next term.

When the South Master is finally retired this year it will have been in use by students for more than thirty years. Originally, as its name implies, it opened many of the buildings on the South side of campus. More recently it was opened only a handful of buildings including Bridge and the Art Chateau. According to the Lock Shop there are currently an estimated 5000 unreturned South Masters.

Rotation Ends



Top: Class of 2014 gathers together for dinner at Tom Mannion's house after Rotation officially ended on Saturday, October 2 at 5pm. Right: Brice Nzeukou gets ready to fire the cannon.



Photos by Jenny Yung

Closing Hixon Writing Center: One Cut Too Many

By Wesley Yu

STAFF WRITER

Money, money, money. It's what makes the world go round. If you didn't believe that already, you will after you hear this. Last week, Caltech closed the Hixon Writing Center to save a whopping \$6,750 in tutor salaries (in order of magnitude). Huge savings for a university with a \$1.6 billion endowment, right?

Budget decisions are complicated and there very well may be a good reason for closing the Center. But if there is a reason, it needs to be explained to the students that have used the Center. Over the last few years, "budget cuts" and "financial crisis" seem to have replaced Caltech's motto, "the truth shall make you free." Administrators don't often justify their actions with rational arguments, as long as they can point to some monetary savings for the Institute-- partly, perhaps, because there are so many decisions that they need to justify. However, it is time that student leaders begin to question these cost cutting actions and demand more substantial explanations. Otherwise, we risk losing things that matter more than the money spent on maintaining them.

As Emerson once said, money often costs too much. The closure of the Writing Center is a devastating blow to Caltech's commitment to improve student writing. We are told repeatedly that scientists need to be better writers, but how can we become better writers without help? The Writing Center provided free help to students and played a central role in showing students how to improve their communications skills. Over the weekend, I sent an e-mail to all the undergraduate houses asking whether students use the Center and find it helpful. I received many enthusiastic responses from students who frequently use the center and have improved their writing because of it.

One student told me that approaching a professor about writing can be "a little daunting," but that she was willing to go to the Center because the tutors at the Hixon were "casual and friendly."

but also very efficient." Another said the center was a "big help during [her] stressful freshman year [...], especially after getting confused about what one of [her] professors was trying to get [her] to add to [her] rough draft of a philosophy essay." Yet another student attributed winning the Studenski Award to the help of the Center and was "positive that [her] paper would not have been good enough without the help of the writing center." Other students called the Center part of their "support network" and some worried about their ability to get through future English classes without the Hixon.

The tutors who work at the Hixon are a dedicated bunch. Less than three hours after the announcement that they would lose their jobs, the student tutors started talking about volunteering their time to the Center for free. This selfless dedication to serving the Caltech community is something rare and exemplary. It would be unfair, though, for Caltech to take advantage of this dedication by ignoring the fact that financial support makes the Center sustainable by training new tutors and providing work-study. The current tutors might be able to keep the Center going for a while, but it's a lot of sacrifice on their part, and they deserve some support.

The decision to close a valuable and frequently used resource seems to be a grave mistake and students deserve an explanation. As it stands, Caltech's financial fixation has blinded it to the cost of cost cuts and has made it insensitive to student needs.

Just as a reminder, back in November 2008 when President Chameau sent his first message about the financial crisis, he assured students that Caltech would "protect and maintain the outstanding quality of our core education and research activities." As the recession got worse, President Chameau sent a second message saying that Caltech remains "focused on our core missions of education and research."

Now is the time to make good on those commitments.

BIG SHAGGY What's in a name?

"Art: Take it off its marble pedestal and show it as a daily companion, refreshing, human and rich: witness of its time and prophet of times to come."

—John de Menil

By Wesley Yu

STAFF WRITER

Caltech is renowned for its research, and students here receive the best scientific education in the world. But with such a specific focus on technical studies, do Caltech students miss out on something important, something powerful and beautiful, something called the humanities?

The importance of humanities was well expressed early last summer in an article written by David Brooks. Brooks, a columnist for the New York Times, bemoaned the decline of the humanities in university life and took it upon himself to "stand up for the history, English and art classes, even in the face of today's economic realities." He argued, as many have before him, that technical competence may lead directly to a job but that the ability to express ideas cogently, to use analogies effectively, and to interpret language confidently give students an immeasurable advantage in the job market. But beyond these well-worn arguments, the most important and unique thing Brooks did in his article was to describe a creature he called The Big Shaggy.

What is The Big Shaggy?

The Big Shaggy is, like Freud's id, the animal in each of us (the

hairy unrefined caveman, if you will). Unlike the id, though, the Big Shaggy is also responsible for our greatest passions and achievements as well as our self-destructive impulses. You may recognize him by other names—Love, Fear, Courage, Lust, Pride, and Nobility—each describing a part of Shaggy, but not all of him. You've seen him at work in your own life. The Big Shaggy was there when we chose to attend Caltech, when we pulled our first all-nighter, when we went on that

The humanities give us insights into the depths of human emotion that no science can. By understanding ourselves and those around us on this primal, emotional level, we can lead fuller and happier lives.

of human emotion that no science can. By understanding ourselves and those around us on this primal, emotional level, we can lead fuller and happier lives. That's not to suggest that students of science, like us, need to have Shakespeare at our fingertips or Milton on our tongues. Leave that to the English majors. Just a passing familiarity with the canon would suffice to open a whole new frontier of experience.

Of course, the trouble is that familiarizing ourselves with "the canon" takes time and years of experience, and worst of all some works in "the canon" can be quite tedious if not outright boring. So instead of vainly trying to cram it all down, take your time to read something you can connect to and leave the rest for later.

Looking to woo a lady? Whip out some Donne and you might get lucky. Relationship status "complicated"? Oedipus will make you feel better about yourself, guaranteed. Planning a revolution? Les Miserables will give your cause some fire. Angsty about growing up? Joyce was too. In debt? Well you shouldn't have borrowed from Shylock in the first place.

And if you're none of those things, then you're definitely not a college student.

Joking aside, get to know The Big Shaggy. He makes life so much more interesting.

first date. It helped us get through Maia and then chuck it all for Ditch Day. The Big Shaggy is part of each of us and profoundly shapes our lives. Unfortunately, the Big Shaggy can't be described scientifically (not yet, at least), but he has been studied in the arts. Centuries of writers, composers, and historians have catalogued Shaggy's activity and summed it up for us in their work.

So it's important to study the humanities because they tell us about the Big Shaggy, our own inner animal. The humanities give us insights into the depths

Caltech Library Services will hold a drawing for a \$25 Amazon gift card on October 15, 2010. The drawing is open to Caltech faculty, students, and staff. To be eligible to win, correctly identify the campus location of the image below. Submit your answer via the library's text service, Text a Librarian. Text caltech, the location of the image, and your name and contact info to 66746.



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Gambling on grades

Gambling on grades distracts from learning

By Sandhya Chandrasekaran
STAFF WRITER

We Techers may enjoy math, science and engineering a bit more than the next person, but when it comes down to it, we are pretty much your average college students. Despite knowing the importance of a normal sleep schedule, we stay up till odd hours of the night, procrastinating our sets until hours before the deadline. We forgo healthy, balanced diets and regular exercise in the name of work, when we are simply just downright lazy. Since we constantly toy with every other aspect of our lives at the present, why not treat our futures as a game, too?

Now forget the board game and the cereal. Ultrinsic Inc. has found a new way to spice up life and give all of us the adrenaline that we seem to crave with our every breath. The site allows students to win money if they earn the grade they anticipated at the beginning of the semester.

The company launched the program last year for University of Pennsylvania and New York University students and expanded to 36 schools this year, including Pitt and Penn State University.

After a student registers with Ultrinsic, he or she uploads a class schedule and must also give the company complete access to official school records. Based on the student's college history, class difficulty, and other pertinent factors, the site will calculate the

odds for the gamble and subsequently contribute a reasonable amount to the bet.

A nifty solution for those students eager to make a quick buck or two would be to join at the beginning of their undergraduate years, when the website would have no record of their academics. Thus, an intelligent student would be able to make more seemingly risky offers with a higher than expected payoff.

But that's just it. This system of boosting motivation and grades quickly spirals into a series of mental calculations and gambles, drawing the focus off of the grades themselves. And while website representatives repeatedly persist that Ultrinsic is not gambling in the sense that students are competing with themselves, it definitively puts the idea of betting in a positive light by fundamentally mixing it with school and future success.

Although Ultrinsic has undoubtedly come up with an interesting solution for students who lack the motivation to take their education seriously, using money as an incentive is hardly the answer. Students, especially ones who have willingly made the decision to pursue their studies further by going to college, should have the maturity to understand the importance of a college degree. If they don't, they're facing some truly daunting odds in the long run, and the money they are gambling with right now is not going to teach them that.

Not Gambling, but an incentive to improve academic performance

By Amol Kamat

STAFF WRITER

Ultrinsic.com's GPA betting may sound like an unethical scam at first glance.

According to The Daily Targum: "Students first establish academic goals they would like to achieve, like a certain grade in a course or a certain semester grade point average. Ultrinsic users then agree to contribute to a monetary incentive, while Ultrinsic also agrees to contribute to the incentive. If students meet their goals, they may collect total winnings after submitting an official copy of their semester transcripts to Ultrinsic. But if a student fails to meet his goals, Ultrinsic retains his contribution to the incentive, and he receives nothing."

When you step back and actu-

ally think about it this is a perfectly fine idea. In fact, it's one of the best ideas I've heard, and I watch *PitchMen*. But, seriously, betting money on how well you will perform is not only a great motivating tool, it is also a good way to prepare you for life. We do this everyday, except we call it having a job.

Suppose I am a busboy at a restaurant. I "bet" my salary on my ability to bus tables. If I clean up my tables properly, I get paid. If I break plates and drop food on customers, I either lose my job or get the old "that's coming out of your paycheck" speech. Either way, I lose the money that I hoped to earn. If gambling is so bad, then why do we depend on it?

On the cover of the April 8th, 2010 issue of TIME magazine, a

similar idea of relating money to schoolwork was featured. The story discussed the effectiveness of money to "bribe" students in elementary school to high school to improve academic performance. In fact, there are grade schools that are handing paychecks to students showing improvements in grades and tests. In the study done by Harvard on schools in four large cities, one city who "got paid all year under a very elegant scheme and performed significantly better on their standardized reading tests at the end of the year."

Once you look past taboo words like "gambling" and "failure", this becomes a tame story. It is simply a tool for our success, and if you happen to lose some money along the way, well that's life.



by Alexandra Souverneva

The Mischief of Men: Our National Debt

By Dan Alvarez
CONTRIBUTOR

Let's cut to the chase. In the world of politics, minds are seldom changed. Democrats will talk about social justice and impose their social programs. Republicans will talk about equal opportunity and feed the defense industry. Democrats will cringe at the words "profit" and "corporation", just like Republicans will cringe at the words "wealth redistribution" and "entitlement". Democrats want tax hikes; Republicans want cuts in spending. In the eternal struggle of politics, it truly is the same old song and dance. Irresponsible leftists and greedy right warmongers will forever battle, quoting their favorite economists, candidates and pundits, but the debate is fueled by a very sincere love of country and belief that [in the case of democrats] the government can spend money more efficiently than the individual, or [in the case of republicans] individuals are better off keeping and spending their own money. The tab that this debate racks up (and by that I mean the U.S. National Debt), however, is something that we are all stuck

with.

So that the reader knows the author's bias, I am a fiscal conservative. I believe that Clinton should be praised for his fiscal restraint and centrist philosophy, which lead to a record surplus. I also believe that Bush deserves all the criticism he got for engaging in a war that cost \$709 billion off of false intelligence, leading to a record deficit (at the time). I especially believe that Obama should stop trying to blame Bush for the criticism he deserves for tripling the deficit with his failed stimulus and government-expanding policies.

I do not say "failed" stimulus to make a political point. Like I said before, minds are seldom changed in the world of politics. But for those of you entering the college world, not yet blinded by ideology and still willing to listen to common sense, I appeal to your sense of reason to holding our leaders accountable for their actions. Obama's stimulus bill has failed by Obama's own metrics. In January 2009, the new administration justified the greatest expenditure in the federal government's history through fear tactics, claiming that the unemployment rate was en route to hit

9% and that the stimulus would prevent the unemployment rate from surpassing 8%. It failed. The "summer of recovery" that Obama and his democratic supermajority in congress promised never materialized. As of August 2010, unemployment rose to 9.6% and the value of existing home sales has dropped 27%. But even worse than failing, they have turned an economic crisis into a debt catastrophe.

The congressional budget office (CBO) has the current cost of the stimulus bill at \$814 billion, which makes it over \$100 billion more expensive than the total cost of the 7-year war in Iraq. The deficit ballooned to an unprecedented \$1.4 trillion in 2009 and is projected to remain at \$1.5 trillion in 2010 (see below). Obama has single-handedly increased the U.S. National Debt by 25% from when he took office (now \$13.3 trillion). So far in 2010, we have paid \$375 billion just on the interest of our debt! Compare this to the federal budget of \$53 billion for the department of education and \$73 billion for the department of transportation. Image what the interest will rise to by the end of the decade, where the CBO is projecting \$6.9 trillion

of additional debt. The United States is still the richest country in the world, but if the interest on our debt exceeds the \$1.4 trillion that we bring in on income taxes, mark my words that we will have squandered our wealth to the point of bankruptcy.

Source: <http://www.federal-budget.com/HistoricalTables.pdf>

About a year ago I debated then-president of the Graduate Student Council Evans Boney, who compared the economy to a broken air-conditioning system that Obama was going to simply step in and fix with the stimulus bill, regardless of the cost. The cost, however, cannot be ignored. The Obama administration took a tremendous gamble in appropriating historic quantities of taxpayer dollars and the economy has yet to recover. Where is the accountability? The democratic rhetoric has changed from "summer of recovery" to "well, it could have been worse". As I argued a year ago, the economy is not an air-conditioning system that can be fixed simply by throwing money at it. In an attempt to save some of the seats that the democrats are expected hemorrhage in November, President Obama toured numerous talk shows, touting the 1.6 million jobs "created" by the

stimulus. What he did not reveal is that each of these jobs has come at a cost of \$300,000 to the taxpayers. And what kinds of jobs has he created? Try "jobs" studying the effect of cocaine on monkeys, photographing exotics ants, repairing an abandoned sidewalk that leads to a ditch... inexcusably outrageous.

Our great founder and author of the declaration of independence Thomas Jefferson once said, "In questions of power let us hear no more of trust in men, but bind them down from mischief with the chains of the Constitution". President Bush completely disregarded the constitutional mandate that only congress may declare war in Iraq. Congress has increased the legal limit on our debt numerous times, most recently this February (from \$12.1 trillion to \$14.3 trillion) without a single republican vote. Ask yourself, has our government been "mischievous"?

Minds are seldom changed in the world of politics, but as college students you all represent the future taxpayers of this great nation. I urge you to vote for candidates this November who will repair the rusting chains of our Constitution before it is too late.

Adventures around Old Town for the sweet tooth

By Neha Samdaria



Part 1: Aux Delices

Moments after a delectable meal, when my stomach feels so engorged that it might just explode, and I feel as though I am entering a food coma, my hand, somewhat uncontrollably, reaches over to the dessert spoon and feeds me a bite of that tiramisu cake. Sigh. The truth is, no matter what, there is always room for dessert. Even if I'm ridiculously full from dinner and the thought of eating one more bite of my margherita pizza seems impossible, it feels possible to finish up a slice of chocolate fudge cake.

That's why, this week, I gathered two friends to join me on a dessert-tasting adventure in Old Town, Pasadena. Sunglasses on eyes and totes on shoulders, we ventured out on a lazy Thursday afternoon to conquer two French bakeries on Colorado Blvd; Aux Delices (Part 1 of this review) and Le Pain Quotidien (Part 2, to be published next week). Each bakery had its own style and flair, and each had something a little different to offer from the other. By the end of our journey, we not only felt satisfied, but also inspired by

some of the unique approaches these bakeries used to create otherwise conventional desserts.

Aux Delices is a quaint little bakery, furnished with small, round tables and cozy 2-4 person seating arrangements. Porcelain plate wall decorations and hanging chandeliers adorn the room, and perfect the nifty, snug look of this bakery. It is, at first impression, exactly how I imagine a Parisian bakery to be.

Then, I notice the music playing in the background. A constant, strumming guitar? Strong beats that you can tap your feet to? This music was unmistakably Spanish. Spanish music in a French bakery? Hm, unusual, but I guess it works.

My friends I proceed to the counter at the front of the room to scope out the delights that are on display. Tarts, Cakes, Crème Brûlée...what should we order? After much careful consideration, we decide upon three scrumptious looking desserts; a Raspberry Tart, a Chocolate Brûlée dome and a Napoleon. We find a table for three and begin tasting.

I begin with the Raspberry Tart. Much to my surprise, it isn't cus-



tard filled! The tart is filled with fresh whipped cream which tastes incredible with the moist raspberries on top. The speed at which I am able to tackle the dessert



also makes me realize how much lighter the tart is without a custard filling. Good or a bad thing? I have yet to decide.

One of my friends begins her culinary escapade with the mysterious Chocolate Brûlée dome. "I wonder what's inside?" she giggles. As she begins to divulge the dessert, her eyes widen with each layer of the dome. "It's like a giant truffle. And look there's cake on the bottom! And custard at the top!" After taking a few spoonfuls of the dome, she concludes "I have no idea what this is, but it's REALLY good!"

For those who are unfamiliar with The Napoleon, it is a French-originating dessert, made up of crisp layers of vanilla cream and pastry sheets. In short, it is delicious, but impossible to eat. At this point, we should not have been surprised that The Napoleon de Aux Delices was a little out of the ordinary. Instead of having thin, crunchy, layers of pastry and cream, this dessert has much thicker layers, with much more cream. While the cream is well made and doesn't taste overpoweringly of egg, its presence makes

the pastry chewy and takes away from the crispness. We prefer the original Napoleon.

In short, Aux Delices is full of surprises! While the desserts appear conventional when on display, their distinctiveness can only be tasted. We know that not all surprises are good, some may be disappointing. But I can say without a doubt that the trip to this charming little café in Old Town w



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Beavers Knock Off Defending Conference Champions

By Amol Kamat

STAFF WRITER

On a hot September afternoon, the Caltech Beavers faced off against defending SCIAC champion Pomona-Pitzer. No doubt inspired by my last article, the Beavers came out swinging, with Alex Wein scoring the first goal of the game in the 23rd minute. The game remained scoreless until midway through the second half, when Mikhail Sushkov added the game winner. Jonathan Yeung assisted both goals.

Exasperated by the prospect of losing to Caltech, Pomona began a late push that resulted in a goal, making the game that much more interesting, and leaving Beavers fans saying, "It was too good to be true." Unphased, the Beaver defense stayed strong, while the Beaver attackers were able to keep the ball away from their counterparts. A light rain began to fall as the game drew to a close, and adding to the storybook feel of the day, the sun came out as the final seconds ticked away and Caltech emerged victorious.

The Caltech fans stormed the field, and coach Rolo



Caltech soccer captain Jonathan Yeung looks on as teammate Michael Sushkov kicks in a goal against Pomona-Pitzer in Caltech's first soccer win of the season.

Uribe was doused with water as the underdogs began their celebration. It truly looked as if Caltech had won some sort of championship, which they very well did. They gave weary Beaver

fans (not just of soccer, but of any sport) something to cheer about. In a college where all-nighters dominate and a party is ten drunk guys dancing around a girl, getting a group of students excited

about something non-academic that will not help them get into graduate school is definitely an accomplishment. Despite the humidity, rain, and apparent SCIAC ban on vuvuzelas, the

Beavers showed true heart, and were the champions of that most memorable day.

In other news, the Beavers lost 5-0 to La Verne on Saturday.

Oxy knocks off Tech in volleyball action

By Rick Paul
SPORTS EDITOR

A strong offensive charge lead by Logan Boyer-Hayse along with a .395 team hitting percentage helped propel Occidental past Caltech 3-0 (25-7, 25-13, 25-13) on Saturday evening at Braun Athletic Center.

The Tigers are 12-2 overall and 5-1 in league action. Boyer-Hayse racked up 18 kills and a .552 hitting percentage. Stephanie Gann added nine kills and a .368 hitting percentage.

Caltech is 1-10 overall and 1-6 in SCIAC action. Its offense was lead by Paige Logan who had a team high six kills.

Caltech's cross-country team runs at the Pomona-Pitzer Invitational on Saturday



Alan Menenezes crosses the finish line at the Pomona-Pitzer Invitational on Saturday, finishing third out of the Caltech men's team. Both the Caltech men's team and Caltech women's team finished 10th out of twelve teams.

Weekly Schedule

October 5, 2010
Women's Volleyball
at Whittier
7:30 PM

October 6, 2010
Men's Soccer
at Claremont-M-S
7:00 PM

October 7, 2010
Men's Water Polo
vs. Connecticut Col.
5:00 PM

October 8, 2010
Women's Volleyball
vs. Cal Lutheran
TBA

October 8, 2010
Men's Water Polo
vs. Penn St.-Behrend
@ Convergence
Tournament (Las Flores Park)

11:20 AM

APPLES AND ORANGES

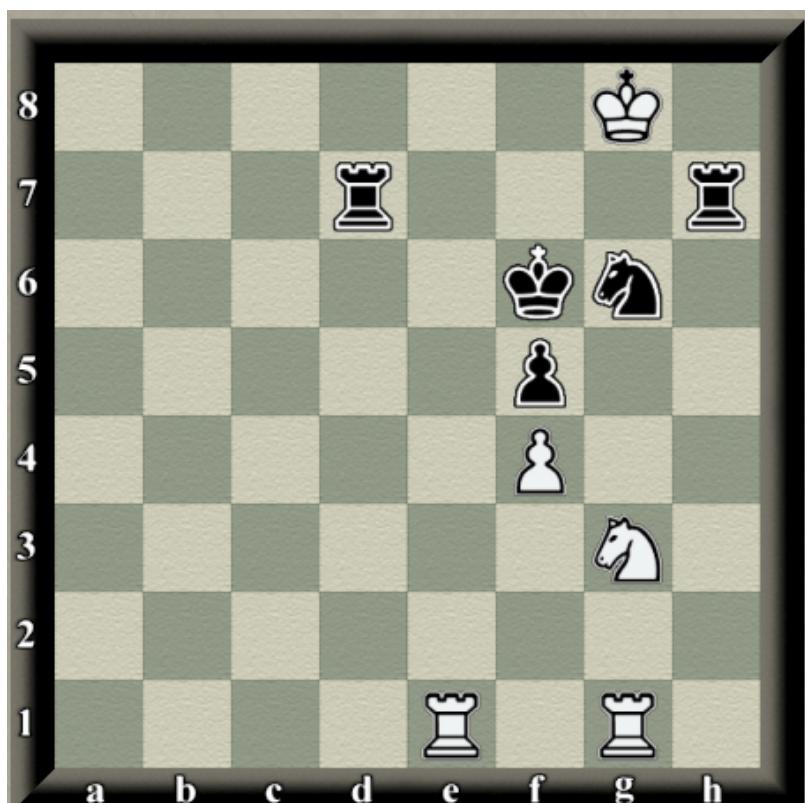


BY REBECCA LAWLER

XKCD by Randall Munroe



Chess Club Problem of the Week



White to play and mate in 3. Composed by Al-Adli in the 9th century!

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