

THE CALIFORNIA TECH



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Housing Finds Funds for South House Projects, Architecture Services Refuses to Accept at This Time Additional Projects Would Delay House Reopenings, Will be Considered in January



As the South House construction draws to a close, the fence around the perimeter was taken down.

Photo by Matthew Glassman

BY: VIBHA LALJANI

Recently, Tim Chang, the Senior Director of Housing, found some funds for additional projects in the renovation of the South Houses. However, the Architecture Services has refused to accept these funds for now. The basic renovation of the South Houses is complete. Housing and the IHC are disappointed that Architecture Services was unable to utilize the funds for additional projects before the reopening. The Tech was unable to secure an interview with Chang as he was out of town last week.

Bradley Smith, of the Architecture and Engineering Services, said, "Only five weeks remained before the renovation of the south houses would be essentially complete, when the decision to refuse the funds, for now, was made.

There is a lot of work to be completed keeping a lot of people busy. So, there is no time to manage any new resource now. Additional work will certainly be considered once the original scope of work has been accomplished."

The funds, if and when accepted, will be used for several projects that the Architecture Services could not undertake earlier due to deficit of funds. Brad Smith gave a brief description of the projects they have in mind. He said, "There are several projects we can work on with the new funds. We can finish the Student Activities Center, the dining court. In addition, we can install handicap lifts in three or four alleys per house for ease in moving around in a wheelchair. Most of the work, like the flooring, for installing the elevators has been done. However, the elevators are yet to be bought. Moreover, we

can put up the whiteboards on the doors."

No SAAC, no whiteboards, no handicapped lift! At first glance, some students may worry about the situation. However, these funds have only been turned down for now. The Architecture Services will consider these additional projects in January. Brad Smith said, "We will consider the additional tasks only in January because it is critical that the students move in by mid-December and adding any projects now will only delay the re-opening of the houses. Moreover, all these tasks can be done relatively easily during the winter term without interrupting the residents."

These projects are not trivial and were originally part of the main renovation plan. However, things changed due to unexpected costs. Brad Smith said, "In spring, we

realized that we were over budget. So, we had to take out a lot of projects to reconcile the situation. Essentially, after starting the demolition, we found six miles of piping that had to be removed. This was a huge cost hit. In order to recover from this some projects like the SAAC, the elevators for the handicapped had to be taken out."

The IHC and Housing are not upset because these projects will be completed in January. They are disappointed because these funds may not be available in January for use by the Architecture Services. IHC chair Craig Montuori said, "Because of the scheduling of Caltech's financial year, when the funds found by Tim were not allocated for use in the South Houses, they were lost to us and became part of the general budget, where it is unlikely that we will be able to use them in the future."

Caltech and MIT Hope to Fix Voting Problems

BY: MARISSA CEVALLOS

Well-trained eyes will be watching tomorrow's primary elections as the Caltech/MIT Voting Technology Project (VTP) sends professors and students to polling places around the nation to observe changes made in the voting process since Florida's debacle in 2000.

Caltech, MIT, and University of Utah professors and students will be traveling tomorrow to polling places in Los Angeles, Albuquerque, Boston, Atlanta, and Salt Lake City.

The VTP is excited for Tuesday, but its reservations are apparent.

"We saw what could happen when new procedures were in effect," said Mike Alvarez, professor political science at Caltech and co-founder of the VTP, referring to implementing voting machines on a small scale in the 2002 and 2004 elections.

"They weren't high turnout [districts], but they had problems."

With somewhere between "two and four million votes lost" in the 2004 election due to registration error, ballot design, or bad polling place process, according to Ted Selker of MIT at a teleconference last week, it is clear that "huge improvements could be made."

The VTP hopes to see some of these improvements tomorrow at the polls.

The project, created the day after the highly contested 2000 presidential election, is a joint venture between the nation's top technology schools to use electronic voting to efficiently and accurately cast ballots. Alvarez has headed the project along with a few other professors at MIT and the University of Utah.

Said Selker, "I've been to well over 300 polling places, and I can't

remember one where I didn't learn something. Some of them have made changes to the way voting is done."

These changes have been made on both microscopic and macroscopic levels. Since 2000, the VTP has been a driving force behind changes in voting, notably in influencing the Help America Vote Act.

Some changes have been more local in scale.

"In LA County, we just observed early voting," said Alvarez. "One of the things we noted from the last primary is an old device that had a plastic flap that some voters appeared to close, disabling the device. We communicated with some of the vendors, and when we observed last week, that piece of plastic has been removed."

Though the VTP's goals have been received with relatively small opposition, lingering concerns about privacy have surfaced.

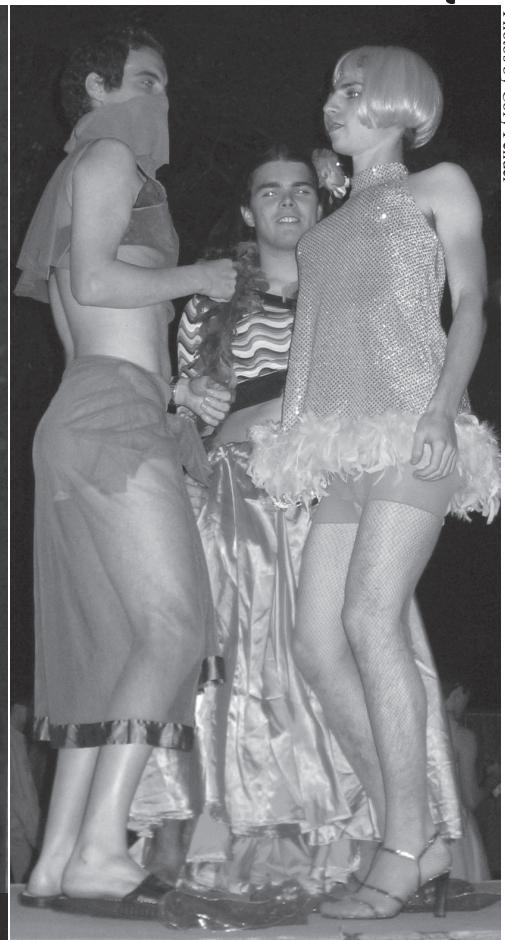
"Basically, the fact is that this software in these systems is being developed in short periods of time, and it requires people to be very careful about who has access to it," said Selker.

"There are two situations: either we have people who are too knowledgeable and too sophisticated without supervision, or the people who are setting it up and managing it are too unsophisticated. Both are concerns. We want the expertise to only rely on the vendors and outside people."

Big Brother fears aside, the VTP expects only improvement from tomorrow's elections.

"We saw the precursor in 2002 when people were thrown electronic voting machines without guidance," said Selker. "By 2004, people were more careful, but most importantly, forensic analysis said that where people had training, there was a huge improvement with voting."

Dabney Dudes Dress in Drag in Day of Debauchery



These photos were taken last Saturday at Dabney House's annual Drag Show. Featured above (right) are the three finalists: Princess Kashmir (winner), Krystal, and Foxy Kangaroo Larue.

The three finalists are also shown making good use of the show's host, Mike Ferrara (top left).

To the left, Ferrara introduces one of the semi-finalists, before she left for her night job waiting tables in a local diner.

Caltech Good at Football?!

Page 5

In This Issue

- Alum to Build NanoCity in India
- More Finance Experiment Results
- Finally, Another Editorial
- Mark's Track Prattle
- How to Write for The Tech, HamilTony Style

The MOSH Speaks Out on Mural Policy

Page 7

Page 3
Page 4
Page 6
Page 6
Page 8

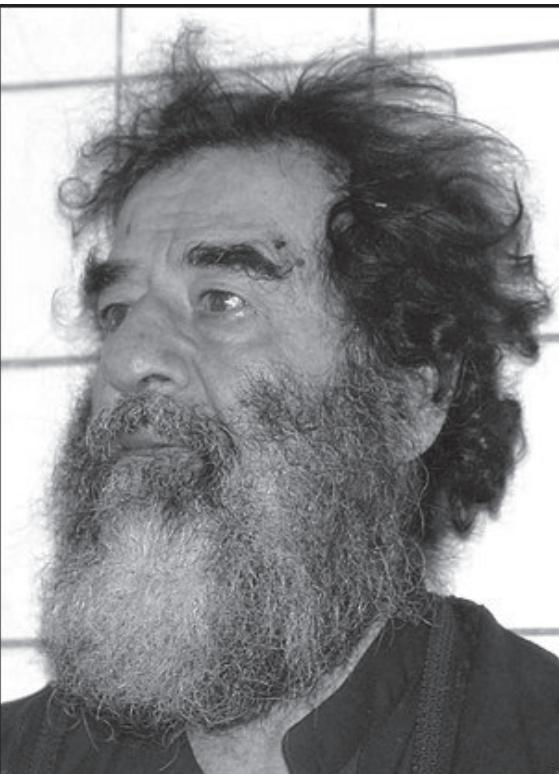
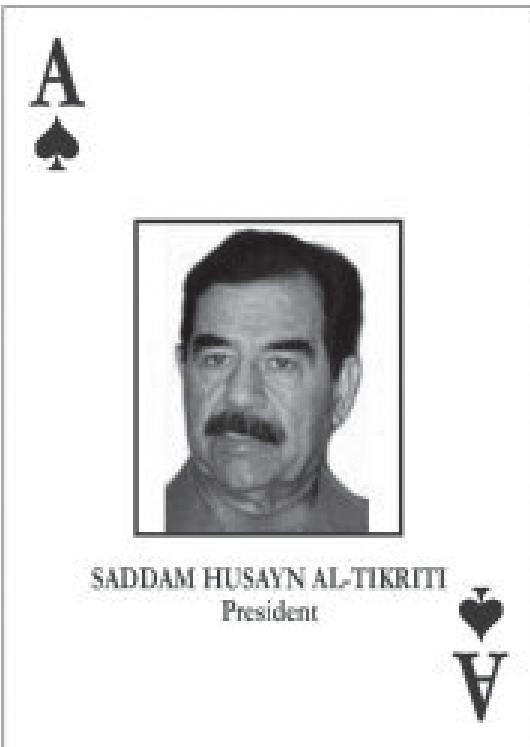


The Outside World

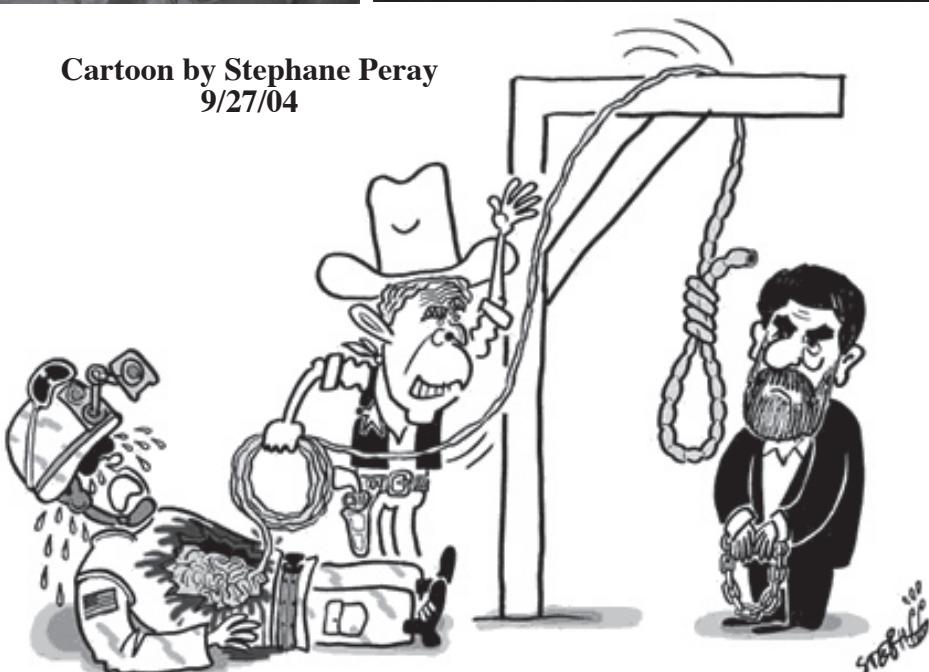


Saddam Hussein Sentenced to Death for Crimes Against Humanity

A Brief, Chronological Photohistory of Saddam



Cartoon by Stephane Peray
9/27/04



ASCIT Board of Directors Minutes from the Side Room in Chandler Wednesday, Nov 01, 2006

Present Officers: Todd Gingrich, Jean Sun, Csilla Felsen, Nate Donnellan, Chris Watson, Vickie Pon, Chris Gonzalez, Craig Montuori, Jon Senn, RJ Krom

Guests: Lauren Savage, Mitchell Wang, Nathan Crook, Mike White, Dalina Thrift-Viveros, Tsong-Lian Tsay

1. Funding Requests

* Speed dating! Mitchell and Nathan have booked Dabney Gardens and have already started publicizing the speed dating event (Nov 11). Only undergrads/

no creepy grad students will be there. Hot pink flyers have been put in the girls bathrooms at Oxi and PCC to get a better ratio at the event. Mitchell and Nathan asked for more funding for the event since the response is very good and they expect at least 20-30 people to be there. Vote: Additional funding for the speed dating event was granted (8Y/0N/2A).

* CCF is providing blue slip milkshakes as always for people failing classes. Lauren asked for ASCIT funding for the milkshakes. Vote: \$100 was granted to CCF for blue slip milkshakes (9Y/0N/1A).

* Mike asked for club funding for the Caltech Chinese Student Association (CCSA). The CCSA

funds multiple dim-sum morning every term that anyone can go to. Vote: \$200 in club-funding money was granted to CCSA (9Y/0N/1A).

* Dalina asked for ASCIT funding for last night's Dabney Pumpkin Drop. ASCIT usually gives \$100 for this event. Vote: \$100 was granted to Dabney House for their annual Pumpkin Drop event (9Y/0N/1A).

2. Updates

* The movie library wheeley cart was ordered and is on its way.

* The Trustee meeting went very well. The presentation was effective, and hopefully there will be measures to increase faculty-

student communication.

* The budget for the Little t went over by thousands of dollars because of a lack of advertisements published. The BoD decided not to give the entire salary allotted to the Little t staff in the ASCIT budget.

* South House Party planning is more than under way now! All the Houses will have themes picked out by the end of the week.

* We need to make sure everyone knows that the new mural policy everyone is griping about is just a DRAFT. There will be an Open House event soon, and the next [this] Tech issue will talk more about the mural policy draft.

* Prof. Lester wants a report

Announcement
Caltech Receives \$1 Million Grant
Amgen Foundation Makes Donation to Support Undergrad Research

On Oct 25th Caltech announced a \$1 million grant from the Amgen Foundation to support undergraduate research opportunities for 25 students each summer over the next four years.

The grant will pay for student research projects under the guidance of Caltech faculty in fields of biology, bioengineering, and biomedical sciences. Additionally, the students will attend scientific seminars and professional development workshops, and they will have the opportunity to take part in an annual mid-summer, three-day symposium to discuss their research projects and hear firsthand from leading scientists in both academia and industry.

"We are honored that The Amgen Foundation has chosen to include Caltech in its initial Amgen Scholars Program award," said Caltech president Jean-Lou Chameau. "As a result of The Amgen Foundation's commitment to undergraduate research, we will be able to provide hands-on research experiences that we hope will encourage the pursuit of graduate training in the sciences and excite students about research and scientific careers."

The Amgen Scholars program is a \$25 million, eight-year initiative to provide research experience for students interested in pursuing a graduate degree and eventually, a career in science. The program includes partnerships with ten of the nation's premier universities, of which six are located in California. For the first phase of the program, which extends through 2010, Caltech and the other nine universities each will receive \$1 million over the next four years. Program participants will include the university's own students as well as students from other accredited four-year colleges and universities in the United States, Puerto Rico and other U.S. Territories.

Financial support for students is a critical component of the program, and thus eligible students regardless of their financial status are able to participate. Students will receive a competitive stipend along with room, board and a travel allowance, including travel to and from the university and symposium.

The nine other program partners include Columbia University/Barnard College; Howard University; MIT; Stanford University; UC Berkeley; UCLA; UCSD; UCSF; and University of Washington.

For more information about Amgen Scholars, please visit www.amgenscholars.com

for the Faculty Board about the SAC.

* The IHC Rotation Survey is coming out soon.

3. Next Week's Meeting

* On the agenda for next week: There's a D&D club that would like funding. Matt Glassman from the Tech wants a camera. Chris Watson better have distributed the Staff Awards by next week.

Respectfully submitted,

Vickie Pon
ASCIT Secretary

Caltech Alum Strives to Create NanoCity in India

Bhatia, c/o '91, Gives Talk on NanoCity, Entrepreneurship

BY: RADHIKA MARATHE

The founder of the first ever web based email service Hotmail, Sabeer Bhatia was at Caltech to give a talk titled *Web 2.0 – The Re-emergence of the Web and the Story of Founding of NanoCity* at the Beckman Institute Auditorium on Friday, November 3rd, 2006. As part of the talk, Bhatia spoke of his latest entrepreneurial venture, NanoCity, which involves recreating the Silicon Valley in his motherland, India.

Bhatia grew up in Bangalore, India. He received his undergraduate degree at Caltech in 1991 and his Master's degree at Stanford. He founded Hotmail in 1996 and sold it to Microsoft for \$400 million and he has been involved in several technology ventures since then.

Bhatia had flown in from India just the day before after signing a deal with the Haryana government, a state in Northern India, giving him complete rights to develop 11,000 acres with complete freedom from government interference.

The Idea Behind NanoCity

Bhatia shared his vision for the Conceptualization and Construction of NanoCity during this talk.

The entire 11,000 acres over which the construction is proposed, is situated some 3 hours from the capital Delhi at the foothills of the Himalayas. Although it is just barren farmland at the moment, Bhatia promised it will be a habitable city by the end of 2009 or the beginning of 2010.

A solid base of infrastructure, intellectual capital and efficient energy management are the three key elements which will be carefully controlled while developing NanoCity.

Bhatia has envisioned Nanocity to be a role model for futuristic cities in terms of planning for sustainable development, its intellectual capital, private and public partnership as well as aspects such as aesthetic appeal and provide social, cultural, spiritual and sporting leadership as compared to other cities.

To explain the inspiration behind this vision for India, Bhatia started with an explanation of the elements important for any country to progress – the most important being education, closely followed by a cultur-

al platform encouraging innovation, physical and virtual infrastructure, venture capital, legal systems and opportunities informal exchanges.

A basic problem with the Indian economy till 1991 was a model with government-run monopolistic organizations and enterprises in major areas such as transport and communications that functioned at minimal efficiency and ran into losses due to lack of incentive to optimize production.

After the economy was opened to the international market and many of such enterprises privatized, they not only improved profits but also provided services that were many times better than the previous. Examples include Airlines such as Kingfisher and Jet Airways with first-class service and telephone communication which offers services at as low as 2 cents per minute anywhere within the country. The economy is one of the fastest growing in the world with a growth rate of about 9%.

However inspite of all these, Bhatia admits that a basic hurdle for growth of the country remains lack of infrastructure. No city in India today can claim to deliver clean drinking water from the tap, uninterrupted power supply and a modern transport and communications network.

With this basic requirement laid out he started talking about the concept behind NanoCity. So why the name NanoCity? Undoubtedly, Nanotechnology is the future for core research in areas such as Drugs, Computing, Biotechnology, Drug Discovery and Material Sciences Bhatia asserted.

What NanoCity will have is more than just better infrastructure though, he stated. The stress will be also on an eco-friendly environment with efficient use of energy, water recycling, local sewage management, separate live, work and play environments, and removal of dependence on automobiles.

It will also be the centre of intellectual activity with firms such as Genentech and Infosys etc. working in Information Technology, Biotechnology, Nanotechnology and Energy Research as well as leading educational institutes such as Stanford, Carnegie Mellon and UC Berkeley being the anchors for the same. It will be an attempt to recreate,

ate the Silicon Valley environment for the Nano-age.

But doesn't India already have major cities that can claim to have a unique position in terms of intellectual and economic activity such as Bangalore. Bhatia pointed out that the existing cities are just coming apart at the seams with the enormous population growth rate and mass migration from the rural areas to the cities.

The success of this venture will be absolute when it has the highest per capita income, happiness index and sustainability Bhatia maintained. And further, getting inspiration from the success of NanoCity, investors will certainly consider other projects of this kind in India with its third largest intellectual resources, second fastest growing economy and consumer market and more than 50% of population below the age of 25.

Founding Hotmail and Entrepreneurship

Besides the exciting topic of NanoCity, Bhatia's talk also included a look at his entrepreneurial ventures from Hotmail onwards, including advice for Techers.

Bhatia did his Bachelor's and Master's in Electrical Engineering and after Stanford, joined Apple as a hardware engineer.

It was while working on a web-based personal database where people could keep schedules, and family photos etc. that Bhatia and a colleague Jack Smith had the brainwave of adding the feature to exchange emails on the same. The idea was so simple, yet so brilliant that they couldn't believe nobody had thought of this earlier. Bhatia wrote up the entire business plan in one night.

Finding an investor was no easy task. After having 19 doors slam behind them, the venture capitalists Draper Fisher Jurvetson agreed to put up 300,000 dollars for the same and Hotmail was born. Bhatia and Smith stretched their money all the way to one year after the launch of Hotmail and signing up 5 million plus subscribers. By the time they got around 10 million subscribers, Microsoft came knocking with an offer of \$160 million for the company.

Bhatia did not have any experience selling companies but what he was used to negotiating for everything starting from vegetables back home in India. While speaking about this deal with Microsoft, Bhatia gave his first piece of entrepreneurial advice to Techers-when you know the other side really wants the deal, learn to hold out on your claim as you have the upper hand in negotiations.

He spoke about a time during the negotiation process that Bhatia was asking for \$450 million dollars and Microsoft offered only \$350 million to which Bhatia, whose bank balance was \$5000 at that time, coolly refused. For an entire week, he stared at the ceiling wondering if he had made the biggest mistake of his life as all his colleagues tried to make him relent by talking about the amazing holidays and wonderful homes they could have bought with the offer he had turned down.

Finally Microsoft agreed to raise its offer to \$400 million and the rest, as they say, is history. Today Hotmail boasts of the maximum number of subscribers in all web-based email services (250 million) and the firm is valued at a whopping \$6 billion!

It was here that Bhatia spoke of what turned an idea, Hotmail into success. He identified four key ingredients to a successful startup:

- Quality of people – This is the first and most important thing. Its generally this core group of people who work the most on the idea to turn it into reality and hence these must be chosen with care.

- Robust Technology – Should be powerful enough to survive and change with the times.
- Correct identification of problem faced by the masses – Rather than finding or worse inventing a problem for a solution in hand.

- Funding for this venture. As an example, Bhatia spoke about his next venture after Hotmail – Arzoo.com, which was started in 1999 and had to be shut down when the internet bubble burst. Ironically, he identifies the problem with Arzoo.com as that of being overfunded which led to excess spending in a short amount of time. 'Watch every dollar carefully', advised Bhatia to the budding entrepreneurs at Tech. 'Make sure your money lasts as long as possible as you never know when you will get your next batch of funds.'

Here onwards, Bhatia went on to speak about the reemergence of the web after the dotcom bubble burst of 2001, marked by the rise of companies such as Google and Yahoo! with extremely powerful technology means to monetize it.



Sabeer Bhatia, cofounder of hotmail.com, chats with Professor Ken Pickar after his talk last Friday.

The key features of Web 2.0 are a much greater bandwidth than before and more importantly, the stress on user participation.

The advent of broadband and its spread into not only commercial and private enterprises but also about 80 to 90% of the households in places like Korea and Singapore have created new avenues for technological and entrepreneurial ventures.

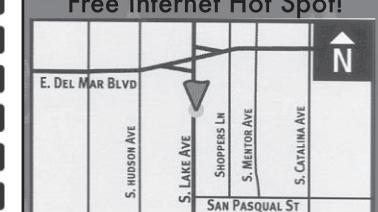
The major feature of the latest web technology and services is user participation though, in the sense of having users and programmers or service providers collaborate to create a product suitable to the needs of the masses. A fine example being Boeing, which has put up its airplane designs on the web to solicit user responses and suggestions. Blogging is another activity which directly allows users to affect products and customize them to their needs.

The talk was concluded with questions and comments from the audience with the issues mainly discussed being the sustainability of the city in the long run, emergence of conflicts between social interests and private investors and suggestions about energy resources such as biofuels.

The talk was jointly organized by the Entrepreneurs' Club and Engineers for a Sustainable World @ Caltech with funding from Graduate Student Council and Dr. Ken Pickar.

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Caltech Alum and Hotmail Creator Discusses Life, Business

BY: RADHIKA MARATHE

After Sabeer Bhatia's talk last Friday on Web 2.0, 14 students had the special opportunity of having dinner with him. The Tech sent me to participate and ask Bhatia some questions.

Bhatia, the multimillionaire co-founder of Hotmail, is an entrepreneur and visionary with many ideas. After a round of introductions at the beginning, the students asked questions about NanoCity, its infrastructure, and energy-conversation techniques.

Bhatia excitedly described the period when he sold Hotmail to Microsoft. Doug Carlisle, the principle investor, had promised he would erect a life-sized bronze statue of him if he managed to make \$200 million off Hotmail from Microsoft, as that was Carlisle's estimate of Hotmail's worth.

After closing the deal for \$400 million, Bhatia went to get some measurements taken for the statue on Doug's request. However, a phone call to India put an end to that. Bhatia's mother flatly refused, stating statues may be erected only after the death of a

person, and the topic was closed.

Bhatia also was asked why he chose to come here and his experience as a Techer. "Well, Caltech's offer of a full scholarship was what decided the college," he said, "for even with both parents working, the disparity between economic conditions in the US and in India is so great that the full tuition could not be covered. The undergraduate experience at Caltech was wonderful though."

"I really missed the small classrooms and the comfort of knowing all your classmates at grad school, but Stanford was a great place for learning entre-

preneurship"

The topic then shifted to life and family when someone asked how Bhatia manages to balance the two. "Ohh, you mean how often I meet my parents? Well, they stay in Bangalore, India, so about once a month".

On asking him about marriage, he groaned, "This is practically the only subject I discuss with my mother," he sighed. "Nothing can stop her from branding me as a complete failure for remaining unmarried and not giving her any grandchildren." There is laughter at the table but he assured everyone that he was totally serious.

With the topic of NanoCity fresh on the students' minds, many of the questions focused on the power of innovative ideas, and his enthusiasm about the project was immediately apparent. Bhatia strongly believes in the power of small ideas to change the world. "Especially in the developing world you see even a new mouth freshener has so many consumers because of the sheer population. And then you don't do it for the money but rather for the challenge. It's the very idea that you can make such a huge change in

CONTINUED ON PAGE 5

Book Review

Dawkins Fails to Impress Audience with Lengthy Prose

BY: MARK EICHENLAUB

The God Delusion, Richard Dawkins

Asking me what I think about God is like asking a Smurf what he thinks about the third spatial dimension. To put it another way, I am equally pleased He allowed interesting chemistry in the universe through the 7.653 MeV resonance of Carbon as I am annoyed by His choice of the color scheme for the Midwest United States.

But for Richard Dawkins, evolutionary theorist, science popularizer, and holder of the Charles Simonyi Chair of Public Understanding of Science at Oxford University, God is not merely another scrap of cultural debris for scientists to toss out in the dumpster back behind their ivory tower. Speaking before a sold-out Beckman Auditorium to promote his most-recent book, The God Delusion, on Saturday October 28th, Dr. Dawkins encouraged his listeners to give up their false gods and follow the one true faith, atheism.

Dr. Dawkins read excerpts from his book before entertaining questions from the audience. The crux of Dawkins' argument is quite simple: God is a terrible, mistaken invention of humans, who, despite not even existing, somehow still manages to underlie a significant fraction of all the world's problems.

Dawkins realizes he won't be converting religious fanatics any time soon. Instead, he wrote that, "If this book works as I intend, religious readers who open it will be atheists when they put it down. What presumptuous optimism!...But I believe there are plenty of open-minded people out there...Such free spirits should need only a little en-

couragement to break free of the vice of religion altogether."

Scientist that he is, Dawkins began by carefully laying down the ground rules. First, a lengthy explanation of what religion is not. "The God Delusion does not refer to the God of Einstein...I am talking only about supernatural gods."

The 'God Hypothesis' that does get Dawkins so riled up is, "there exists a super-human, supernatural intelligence who deliberately designed and created the universe and everything in it, including us." The God Delusion is Dawkins' rebuttal to that claim.

What follows is an organized, methodical, highly-educated, well-cross-referenced build up, followed a few weak paragraphs of punch line.

Along the way, he touches on almost every aspect of religious belief.

Religion, he claims, may be "The Root of All Evil?" because it leads to crazed zealots who repress nonbelievers and women, who preach Creationism in schools, who fight against useful science such as stem cell research and useful social institutions such as abortion, and who even go so far as to kill themselves and others in the name of God in hopes of eternal reward in the afterlife.

But all that seems to have nothing to do with that super-friendly Ned Flanders type who lives next door and just wants to enjoy a pleasant Sunday afternoon pot-luck brunch in the Church bingo hall. What's wrong with Ned?

On the way to answering that question, Dawkins takes on, among other topics, a debunking of the proofs of God's existence ("Who made God?" he retorts), the evolutionary origins of religion ("there will be a selective advantage to children's brains that possess the rule of thumb: believe, without question, whatever your grown-ups tell you"), the source of morals ("we do not need God in order to be good

– or evil"), and the problems with religion ("I am hostile to fundamentalist religion because it actively debauches the scientific enterprise") before finally driving home his point. "The teachings of 'moderate' religion, though not extremist in themselves, are an open invitation to extremism."

And yet after all that work, I found Dawkins' final shot was far off the mark. Dr. Dawkins spent very little time on his final hypothesis – that extremist religion can exist only because there are so many instantiations of more benign forms of faith.

Instead, the bulk of his book is taken up with a bit of data here and there, a few reasonable logical arguments, a nearly-endless chain of 'give a bunch of examples' or 'cite a smart person' arguments, and when running out of all of those, a healthy dose of self-repetition.

The God Delusion is a wholly-unnecessary 374 pages long. I found that once, in my impatience at attempting to navigate Dawkins' circuitous meditation on 'irreducible complexity' (one of Creationists' pet arguments for the existence of God) I became so frustrated by the author's infatuation with his own prose that I simply scrawled right across the page in angry ball-point letters, "GET TO THE F-ING POINT!!!"

As an inflammatory, Dr. Dawkins' book is brilliant. The God Delusion has garnered huge waves of attention with its bold language and direct castigations of a belief that we, as a society, tend to tiptoe around like a camel passing through the eye of a needle. Dawkins' website, www.richarddawkins.net, built as an atheist community centered around the book, documents the book's high sales and widespread media attention. But despite its capacity for rabble-rousing, as a level-headed argument against Everyman's reli-



Photo by Mark Eichenlaub

Author Richard Dawkins speaks to a sold-out Beckman Auditorium audience about his new book *The God Delusion*

gion, it leaves much to be desired.

"I certainly couldn't find hope in Dawkins' talk that the world would be a better place without religion," said Caltech grad student Michelle Stempel after the event. She explained that "I was more disappointed that Dawkins didn't explain more succinctly why he thinks religion is so dangerous."

The inability to make people care, even if they agree with his points, seems to be the chief problem Dawkins faces with the scientific community. When I asked one of my professors about what I perceived to be Dawkins' pseudo-scientific argument for the improbability of God, instead of a scholarly critique (which, admittedly in this case was likely impossible) I was treated to a passionate, ten-minute tirade on religious faith as schizophrenia and the distinction between a blastocyst's embryonic stem cells and "a little bag with a baby inside, trying to get out."

Perhaps the best thing I can say for Dr. Dawkins is that he is absolutely honest and sincere. On his website, Dawkins writes, "I am one of those scientists who feels that it is no longer enough just to get on and do science. We have to devote a significant proportion of our time and resources to defending it from deliberate attack from organized ignorance."

For that purpose he has established the Richard Dawkins Foundation in America and the UK, with specific goals of funding research into the psychology of unreason and promoting science, reason, and humanism education.

So, if you feel called by not-God to do his not-bidding, check this book out. But for the rest of us, I suggest the best thing we can do is live our lives the best way we know how, and in the mean time be nice to Ned.

Finance Experiment Results

The table to the right summarizes funds' performance in the third round of the financial-markets experiment, which took place on Monday, October 30. There were 71 investors and 32 managers who participated, all of them Caltech students. The fund managers are identified by names of minerals. The DowTech is a fixed portfolio of assets and cash, and provides the measure of return if managers started with that portfolio and held on to it. There were three funds that did not actively trade in this round. Most funds had negative returns in this round. For more details, if you want to participate in the experiment as an investor, or if you would like to see how the managers performed in the previous rounds, see the CLEF webpage at <http://clef.caltech.edu/exp/dp/index.html>

Fund	Returns*	V o l - u m e**	R e - s i d u a l (\$)***	Risky##
DowTech	-0.779	NA	NA	85.24%
Albite	-0.825	8.14%	0.00	93.60%
Alexandrite	0.080	10.36%	145.59	-10.92%
Allanite	-0.448	1.16%	2.83	57.29%
Alunite	-0.928	5.69%	0.00	100.76%
Amazonite	-0.657	6.19%	0.00	72.49%
Amblygonite	-1.510	2.58%	0.00	172.02%
Amosite	-0.759	3.89%	0.00	86.30%
Andalusite	-1.394	1.22%	0.00	150.07%
Anthophyllite	-1.192	0.89%	0.00	127.92%
Atacamite	-0.731	2.72%	0.00	80.78%
Barite	-0.688	1.12%	0.00	85.09%
Bassanite	-0.849	2.11%	0.00	99.75%
Beidellite	-0.889	2.06%	0.00	99.68%
Bementite	-0.833	4.66%	0.00	92.29%
Bentonite	-0.796	1.62%	0.00	90.21%
Bertrandite	-0.799	2.98%	0.00	98.77%
Biotite(PP)	-0.659	1.56%	0.00	77.77%

Birnessite(P)	-0.687	0.99%	0.00	75.28%
Bloedite	-0.569	3.72%	0.00	65.02%
Boracite	-0.321	1.67%	8.82	34.69%
Calcite	-0.365	2.90%	12.62	40.01%
Carnallite	-1.007	3.90%	0.00	123.86%
Celestite	-0.689	1.64%	0.00	75.19%
Chalcopyrite	-1.215	1.54%	0.00	135.73%
Chlorite	-0.904	2.96%	0.00	99.56%
Colemanite	0.426	2.99%	66.15	-39.20%
Cornadite(P)	-0.694	6.65%	0.00	74.92%
Cristobalite	-0.743	3.07%	0.00	81.65%
Cryolite	-1.004	2.82%	0.00	109.82%
Dolomite	-1.005	2.28%	0.00	109.33%
Dumortierite	-0.683	1.52%	0.00	74.98%
Dunite	-0.544	2.38%	1.12	58.14%

Returns = (final value portfolio - initial value portfolio)/initial value portfolio

** Volume = initial value portfolio/(total value of all portfolios)*100

*** Residual = final value portfolio - manager's fee

Risky = (value of final holdings of risky assets)/(value of final portfolio)*100, portfolio values at trading prices, not at return levels
(P) indicates a fund that did not trade this round but will be active in the next; (PP) indicates a fund that did not trade.

Then and Now

The Glory Days of Tech Football

BY: YANG YANG

Sports at Caltech have always taken a backseat to academics. Sagged with a huge academic load, Caltech student-athletes have the unique challenge of contemplating their quantum physics homework and trying to win a game on the same day.

With a wink and a smile, students often boast about the Caltech football team, undefeated since 1993.

Perhaps because that was the last time the school has fielded a team.

In its last season of play, the football team received no coverage in the Tech, only a small scorebox summarizing the team's season: Loss vs. Pomona-Pitzer J.V. 6-52, Final Overall: 0-5.

Next year, football just disappeared off of the athletic calendar, without a single word written about the absence of a long Caltech tradition.

Nineteen-ninety-three was not the first time Caltech couldn't field a football team due to participation; in 1977, the program was put on hiatus for a year due to a lack of interest. Coming off of a 2-4 season with a team of 32, the program seemed to be in good shape. However, only fifteen students showed up for the first practice, woefully inadequate for a game which requires 11 players on each side of the field. According to the front page article on the September 22 issue of the Tech that year, only four freshmen showed up for practice.

"The demise of the program this year is less a defeat than a testimonial to its remarkable persistence in the face of the nearly insurmountable obstacles," the article commended. "...the average entering student lacks a solid athletic background and very few entering students are experienced in a given sport."

The year off didn't seem to have any ill effects, as next year the Beavers won three straight over La Canada, La Verne and Tijuana Tech, the first three-game winning streak since 1957.

One of the most memorable wins for Caltech football occurred on November 9, 1968, when the team broke a 35-game losing streak by winning 34-31 against UC San Diego. Next year, the joke goes, UC San Diego promptly cancelled their football program.

The win received massive coverage from the Tech; the November 14 issue from that year has a banner headline announcing "Caltech Beavers Beat UCSD 34-31." Inside, a whole page was also devoted to a photo collage of the victory and subsequent celebrations.

Then-head coach Tom Gutman called it "the finest Caltech football game that I have ever seen."

In the narrow victory, Caltech managed to stop three two-point conversions, six key points that would guarantee a victory. The Beavers led by fullback Michael Brennan and receiver Lonnie Martin built up a tenuous 21-19 halftime lead.

One touchdown, several fumbles

and safeties later, Caltech managed to build a 34-25 advantage going into the final quarter. The team had to endure a final UCSD push and recover an onside kick to secure their first victory in more than six years.

In the aftermath, campus pyros celebrated in traditional fashion: with a large bonfire on California and Lake. Diversion fires were set near campus, along with signal flares atop Throop hall to distract the authorities. After the initial bonfire was quenched, another was set on California and Arden at 1 a.m., much to the chagrin of the busy Pasadena firemen.

Despite all the jokes, Caltech football has not always been a perpetual loser, the 1944 team went undefeated and unscored upon, accumulating a season total of 159-0. However, the majority of the team were Stanford students at Caltech for military training; as part of the V-12 training program, Caltech students were deferred from the draft unlike ones at other California universities.

Starting in 1983, Caltech put together a string of five winning seasons, almost unheard of for most Caltech sports. In 1983, the team went 7-1 and was ranked number six in the National Collegiate Football Association, one ahead of MIT that year. Two years later, the team completed its first perfect season since 1944 by going 7-0, defeating the likes of CSU Pomona.

Alum Advises Students on Value of Education

CONTINUED FROM PAGE 4

the lives of people", he asserted. And truly 'huge change' is an understatement to describe the impact NanoCity will have on the population of India.

When asked whether he looks at NanoCity as more of a capitalistic venture or as charity or social service, he responded, "Well, we all know that charity never works as well as capitalistic ventures. Take the example of the US. You see an entire country that has progressed solely on the basis of capitalistic investments and ventures. With healthy competition between a lot of competitors, social progress is inevitable in the long run."

I asked who his idols were, joking if his mother happens to be one. "I told you I am scared of my mother, didn't I," he winked. In a more serious tone, he replied that there are two men he has always looked up to – one is Steve Jobs for the way he literally breathed life back into Apple. He is an ideal on the professional front while on the personal front, Bhatia respects Mahatma Gandhi for his moral integrity and his undying belief in the fact that the truth will always come out in the end.

Bhatia also mentioned that he had flown in from India just the

day before and already had a full day of seminars and meetings before flying to Los Angeles from San Francisco, his hometown. Bhatia was quizzed on some of the people who went to Caltech with him during his undergraduate years. He managed to remember all of those and passed with flying colors.

Our time slowly drew to an end and I asked him one last question, whether he would like to give any message for Techers. "What Techers do not understand is the value of education at this place", he replied with a sigh. "It is only ten years after graduating that they realize the true value of an education which teaches little in terms of the prevalent technologies in the market perhaps but develops a basic ability to apply knowledge for solving problems. Because technology comes and goes to be replaced by newer and better varieties but basic thinking ability will always be your most useful tool," he asserted.

On that note, we parted ways with Bhatia probably drawing up the master plan for NanoCity with his undying energy and inexhaustible spirit and my mind too overwhelmed in the presence of such a man to think of petty things in life such as my next math homework.

Career Corner

BY: JONIE WATANABE TSUJI

Career Counsellor

Students who seek advice on career goals after graduation can consider getting a mentor. Merriam Webster defines a mentor as "a trusted counselor or guide," "a tutor or coach." MentorNet is a website where students can find a mentor, someone to talk with and get encouragement. As stated on its webpage, "Founded in 1997, MentorNet provides highly motivated protégés from many of the

world's top colleges and universities with positive, one-on-one, email-based mentoring relationships with mentors from industry and academia."

Last year 15 students participated in MentorNet. Some of the mentors came from companies such as 3M, Hewlett Packard, IBM, Intel, Motorola, and Texas Instruments.

The majority of participants found it quite helpful. In fact, one student stated in his/her evaluation – "Mostly, it was really helpful for me to have someone to talk

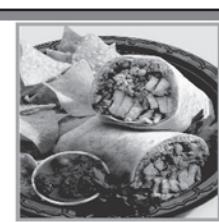
about my experiences with, and to hear their experiences in a similar situation. It was helpful to understand things in a larger career context, and just to get a sense of how my experiences fit into the normal range of activities."

Even if students decide not to go into a protégé – mentor relationship, MentorNet also has other resources: a

MentorNet E-forum (web-based discussion groups to exchange ideas and advice), resources (helpful weblinks), as well as a resume database (where you can post your resume for MentorNet sponsors to review).

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Editorial

The Unlawful Internet Gambling Enforcement Act of 2006

BY: JON SENN

I am a semi-professional poker player. At least I was until October 13th, when President Bush signed into law the Unlawful Internet Gambling Enforcement Act, a provision attached to the Safe Port Act.

While there is little point in discussing the silly justifications offered for the bill, I feel compelled to provide a brief refutation of the explanations provided by Senate Majority Leader Bill Frist, the largest influence on the adoption of the legislation.

According to Senator Frist, the law is needed to protect children, to protect those with gambling addictions, and because gambling has a serious negative social impact.

Yet the law leaves specific loopholes for online lotteries and horse racing (and of course, must make special provisions to allow the trading of financial securities and derivatives, which otherwise would fall into the bill's definition of unlawful Internet gambling). Furthermore, land-based casinos remain entirely legal at the Federal level, as do other gambling venues, such as casino-cruise boats.

The last concern of Frist is that online gambling sites frequently engage in money-laundering on behalf of terrorists. I would be shocked if there were any terrorists dumb

enough to have failed at all forms of money laundering over the Internet, save for online poker. But if Bill Frist says they exist, surely it must be true. Three cheers for Bill Frist for stomping out the vast money laundering schemes flooding PartyPoker.com; the reign of terror has come to an end.

But wait, what if these supposed terrorists discover the Act's safeguards for internet gambling on horseracing and other select avenues? How does selectively outlawing most types of online gambling while securing others prevent online gambling from serving as a means of money laundering?

Some have pointed out that the act may actually help terrorists. In the near future, new underground payment options will sprout up on the Internet to serve the needs of US customers wishing to illegally transfer their funds to online gaming websites. These newly created payments schemes will only provide more viable money laundering possibilities, be it for terrorists, or simply US citizens hoping to avoid paying taxes.

The law is simply not designed to carry out any of Frist's stated goals.

Frist has argued that it is necessary to target Internet gambling but not land-based gambling because it is easier to gamble online and easier to form an addiction to Internet gam-

bling.

Proponents of the ban cite statistics claiming that as much as 10% of the population is dangerously addicted to online gambling. I don't know whether this absurd figure is mere idiocy, a flat out lie, or both. Even the most diehard proponents of online gambling only claim that 10% of the country gambled online at all before this bill passed. Do Frist's supporters expect us to believe that all those who have ever placed a wager over the Internet are now addicts?

You may be wondering what the law actually could achieve, if not Frist's stated goals. Many speculate that the law is a prime example of corrupt politicians, insofar as US casinos contribute large sums of money to politicians and presumably the Internet gambling ban will bring the vast newly created Internet poker market to our fine land-based casinos.

What I don't understand is why so many people suggest that the bill is a good thing for American casinos in the long run.

The hundreds of thousands of online poker players who live hundreds or thousands of miles away from land-based casinos don't frequent the brick-and-mortar establishments. Yet land-based casinos have seen an unprecedented growth in the popularity of poker in the past five years - the poker economy is booming. The

ease of playing poker online, including for "micro-stakes," has played a major role in making poker the fad it is today. While land-based casinos may see a short-term spike in the availability of poker-players, this upshot will be just as short-lived as the remainder of today's poker fad.

The only and most obvious remaining rationale I can find is that Senator Frist pushed the legislation in order to garner votes from his conservative constituency.

Now Frist is able to go home and fight his reelection campaign on the grounds that he has protected our children, our families, stomped out immorality, and safeguarded us from terror. Thank you Bill Frist, for protecting Americans from our wicked selves.

I've already written at more length than I originally intended, but there are several avenues I could pursue the discussion further, especially if I have someone provides arguments more substantial than Senator Frist's, as I'm sure any Tech reader could. If anyone is interested in discussing with me any of the following topics (or other related topics), please feel free to email your submissions to tech@caltech.edu.

Is gambling moral/immoral?

Is gambling good/bad for America?

Is Bill Frist good/bad for America?

What is in store for the future of online gambling (short or long term)?

If you respond, I promise I'll be much nicer to you than I was to the Senator.

Write for The Tech

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If we print your material, we will pay you up to the amounts listed below (at our discretion). Email submissions to tech@caltech.edu.

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SPORTS

Mark's Track Prattle

BY: MARK EICHENLAUB

The eleven men and six women (check out that ratio - way better than two to one) of Caltech's cross country teams scored the most points of all teams present at the SCIAC championships in Prado Park last Saturday. In fact the men scored more points than the runners from Oxy, CMS, and Pomona-Pitzer combined.

This perhaps is not as great an expression of athletic dominance as some of my readers may at this point have been led to believe. That is because cross country is scored like golf, meaning that if you mess something up you can just go back to the line and start over, and your friends will pretend not to notice. Also, if a runner goes into the sand, you just kick him out. The chief dissimilarities, for those who are keeping track, are that cross country running is undertaken by athletes, and that golf players are rarely mistaken for misplaced Halloween-decoration skeletons. Also, no one ever puts me on ESPN. Not even ESPN2.

There are few experiences in life that compare favorably to waking up at six in the morning so you can wander around a cold, wet, gopher-ridden cow pasture, trying to convert yourself from an aerobic metabolism to one based on methane (so as to utilize the most readily-available energy source in the ambient atmosphere), dropping logs (I used a euphemism so this sentence would adhere to *The Tech*'s high journalistic standards) three or four times in a crowded, single-pot bathroom with seven or eight guys you don't know standing outside studying their shoelaces and trying to pretend they don't hear every brpp flipp twbrtt (to take things to an onomatopoeic level) and then discovering there's no paper and improvising a fast but unprintable (there being no paper to print it on) solution, jogging nervously out to the start line, waiting for a fat man



Natalya Kostandova, Katherine Breeden, and Diana Lin easily defeated competitors from Cal Lu and CMS, and some lady in blue jeans and an orange reflective vest

in pinstripes to decide it's time to roll, and then spending about a half an hour listening to voyeuristic screaming of fans and the hot heavy panting of other men jammed in tightly all around you, all while gradually sinking deeper and deeper into a self-excavating metaphorical grave of pain.

But it's like the great maximist Publius Syrus said, "There is no pain in the wound received in the moment of victory." That is why the Tigers of Oxy and Athenas of CMS felt great immediately upon finishing the race, but the rest of else felt, in a word, not good.

But we don't run for the recognition (other than to get our names in the illustrious *California Tech*). The act is undertaken for its own merits - the challenge it presents. It's like the great violinist Albert Einstein said, "I have never looked upon ease and happiness as ends in themselves -- this critical basis I call the ideal of a pigsty. The ideals that have lighted my way, and time after time have given me new courage to face life cheerfully, have been Kindness, Beauty, and Truth [and cross country running]."

In a display of despicable disregard for their manners, the men ran first that morning, leaving the women to sit around talk-

ing about knitting, or whatever it is girls do when I'm not around. (Hey, it's not like I'm completely clueless about what goes on. I mean, I did see the movie "White Chicks". And "Blue Crush". And several episodes of "Sex and the City". But not "Divine Secrets of the Ya-Ya Sisterhood.") I have to draw the line somewhere.)

Leading the way was a newly-rehabilitated (and quite habile he was, too) Mark Eichenlaub (hey, that's me!) running for the first time this season and finishing in 25th place in 27:25 for the 8-kilometer course. Matt Kiesz came closing in fast and nearly nipped his fearless leader at the line, taking 27th 27:31. Third finisher for the men was a giant cupcake by the name of David Rosen (51st), followed by Ben Flora (69th), and in his froshling-innocence having no idea why it's funny). Chris Schantz (76th) had a huge breakthrough race as the Beavers' fifth man, running more than a minute faster than his previous best. Kangway Chuang (78th) and Steven Horokoshi (80th) rounded out the team's scoring. These seven will (however reluctantly) continue their training and go on to compete in the Regional competition on Nov 11. Finishing their seasons

for the Beavers were Tommy Morphet, Paul Suffoletta, Garrett Drayna, and Ben Lin.

The men took eighth place in the meet of eight teams. But if that seems dreary, consider the words of the great expatriate boxer Ernest Hemingway, "So this was how you died, in whispers that you did not hear." Yup. Just keep considering that while I summarize the women's race.

Diana Lin and Katherine Breeden ran stride for stride nearly the entire race before Lin pulled ahead to grab 32nd place in 26:26. It seems like there is something funny to be said about that time, but it's beyond me. Perhaps I should consult Dr. Quark. Katherine, death-elbows flying with the wrath of an angry team captain, deftly pushed her way past several competitors at the end to finish 34th, one second behind Diana. Natalya Kostandova was close on their heels in 26:46 for 42nd place. Sarah Stokes (53rd), Masha Belyi (62nd), and Heather Widgren (72nd) finished the ladies' scoring. All our ladies will continue on the the regional meet. Not because we like them, but just because they're the only ones we have.

Coach Jung advised his team before the meet that the word of the day was "relentless". I found this rather intimidating, because I am used to getting my word of the day from a seven-foot-tall lemon-colored avian on PBS, and those words rarely have anywhere near as many syllables as "relentless" has (I looked it up. In a dictionary. A real one, made with paper. And ink.). But despite their last-place finishes, I still caught that spirit Scott wanted to impress emanating from the team. To put things in the language of the great orator William Strunk, "Omit needless words."

The Mural Policy and Why You Should Follow It

BY: CATHY JURCA
THE MOSH

When the South Houses reopen in December a new mural policy will go into effect. There have been complaints from some Trustees, alumni, faculty, staff, visitors, and, occasionally, residents about the content of some of the murals and their effect on the appearance of the houses. The intent of the policy is to maintain a tradition that most students and many alumni value, while assuring other constituencies that our Houses will be maintained in good condition and that murals will be appropriate for Caltech's public spaces.

The premise is that murals must not be offensive and also must not detract from the general attractiveness of the Houses. The policy, which is still in draft form, is posted online at www.housing.caltech.edu/undergrad/mural_policy.asp. It describes guidelines for putting up murals and mechanisms for dealing with murals that violate the policy, including an appeals process. All students who want to put up a mural in the North or South houses will need to familiarize themselves with it before proceeding.

The purpose of this article is to clarify the necessity for the policy, explain the process by which it has taken shape thus far, and to make a case for why students should follow the policy even if they object to it.

The Rationale

After spending upwards of \$30,000,000 on the South Hous-



A mural of the Lloyd House crest painted in Lloyd Dining Hall. Under the new mural policy, such murals would first need administrative approval which won't necessarily be granted.

es, the Institute needs to ensure that these historically important buildings do not degrade to their condition before the renovation. Many members of the Caltech community believe we should maintain them by eliminating murals altogether in favor of white walls.

The mural policy was devised as a compromise between the "anything goes" practices of the past and the newly vocal critics of all murals in the Houses. An additional imperative is that to obtain funding for the rebuilding of the North Houses, which are approaching the end of their functional life, the South Houses must demonstrate that students can be good stewards of their residential environment.

The Process

We who have worked on the

mural policy have aspired to a scrupulously fair process. The policy has been in the works for well over a year. The first draft was assembled by the former IHC chair, Peter Foley, and ASCIT president, Warner Leedy. Before it is finalized and implemented it will have been the subject of several meetings between administrators and the IHC, meetings of the Student Housing Committee, a meeting of the Stewardship Committee, as well as frequent informal conversations between various administrators in Student Affairs and students.

It will also have been the subject of two IHC/Mosh co-sponsored open houses for undergraduates, administrators, and faculty. The purpose of all this discussion is to explain the policy and the rationale behind it and to get feedback from students.

Student comments have already altered the policy significantly in two ways. A provision that required students to get approval of a mural's design in advance was changed to one that strongly recommends a consultation beforehand. (Students will still need to notify the Housing Office in advance that a mural is going up; they are strongly urged to speak with Tom Mannion about the design). Some administrators and faculty felt that without prior design approval too many inappropriate murals would go up.

The other argument, which prevailed, is that recommending pre-approval demonstrates the administration's trust in the students' judgment and cooperation. The Honor Code, as we are repeatedly told by students, is really about trust, and so we decided to keep faith with its provisions in devising our policy.

In addition, the committee that handled appeals on the appropriateness of murals did not include a student. After hearing from students, we added the student chair of the Stewardship Committee.

Why You Should Follow It

I know there are students who will still be disappointed. Some things, such as graffiti and pentagrams, will not be permissible. But it is important that you follow the mural policy even if you disagree with its provisions or even with the policy as such. There needs to be respect for a fair process, even when the process does not result in an outcome that is precisely what you want. If the fairness of the process does not matter in terms of cooperation,

then there is little incentive for administrators or faculty to work so hard to guarantee that students are consulted and their suggestions taken seriously.

The mural policy places trust in students. Please honor that trust. Willful violation of the mural policy should be understood as an Honor Code violation. There is no exemption in the Honor Code for unpopular policies. Administrators and Trustees are also members of the Caltech community.

It is important that the Honor Code be broadly interpreted; otherwise, it risks being reduced to a guideline that we follow unless it interferes with something that we really want to do. The mural policy itself evolved in large part as a way to ensure that murals at the Institute are not unfair or disrespectful to others, which is just what an Honor Code should be called on to prevent.

I have heard from some students that murals unacceptable under the new policy will be going up regardless. I hope this will not be the case. It is not possible to return to the days of anything goes: that is, the real choice is not between putting anything on the walls and accepting some restrictions on murals, but rather between accepting restrictions and having no murals at all. There will have to be consequences for students and/or houses that willfully violate the policy, once it is finalized, but we all hope for a smooth transition, for evidence that our trust is well-placed.

Please feel free to email comments to me at cjurca@hss.caltech.edu or to *The Tech* at tech@caltech.edu.

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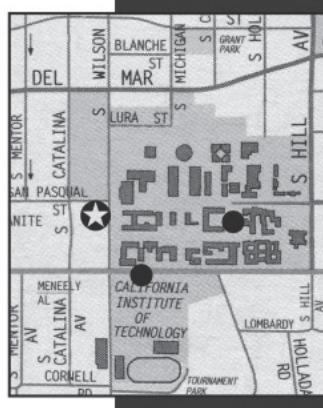
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It's Your Move

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

Puzzle courtesy of www.websudoku.com

How To Write For The Tech

BY: HAMILTONY FALK

It has come to my attention recently that some people are confused about what it is I actually do for The Tech. Some people apparently believe I just sit down and type whatever semi-insane ramblings come into my head (that is actually the job description of the Head Sports Correspondent); while others seem to think that I spend my time mining outer space in search of "the ability to write humor columns."

Since I am a senior, and thus not long for this world, I've decided that rather than have my legacy die and crumble to dust (although likely hilarious dust that is very successful with the ladies) I will reveal the processes that I, the primary Humorist, Executive Director of Footnotes and the William Howard Taft Memorial Columnist here at the California Tech, use to provide joy and chuckling to the Caltech community.

Although you will know the physical details of my craft, my secret ingredient, or 'special sauce' (Thousand Island dressing) is what makes my column really click. So before you follow my procedure literally remember to look deep into your heart and ask yourself if you have the courage, the intelligence and most importantly, the intestinal fortitude to do what I do. You also have to enjoy bad puns. I hope that this will teach you to write as beautifully as I do, but not until I've

graduated.

My writing cycle begins with the editors of The Tech (as well as of the New York Times, the Wall Street Journal and the Daily Star) begging me on bended knee to allow them to print a column of mine^[1]. At this point I must decide what is more important to me, my free time, or the needs of my thousands of adoring fans.

Usually the needs of my fans win out, especially because what I think my fans really need is for me to get a maximum of twenty dollars. Once I decided a column must be produced, I just sit down and start working.

After I've had a sandwich. And a glass of water because the sandwich was rather dry. And also I sometimes take a nap first because eating makes me a little sleepy. But after that I often get right to my writing. Or not, if I'm busy or something. I recommend following a rigorous schedule like this, in order that you not waste time and always meet the editors' deadlines. Unless you're busy.

Eventually I do decide I need to get some words on paper or actually in my case on the special scrolls made of silk and space age plastics which have been blessed by both a priest and a rabbi. I like to consider my words fine art, and I wouldn't want to waste them on any but the most beautiful of writing surfaces. I usually write on them with a sharpie. If you have any pride in what you write you'll use the same materials.

Another important factor in my

writing is having the proper working space. I don't know if you've ever tried to write on a train or in a noisy office, or on a boat, with a goat, or in a house, with a mouse, but none of these places qualify as suitable writing spaces. I prefer a quiet, well-lit location, heated to exactly 71 degrees with a humidity level of 37% and a breeze of four miles per hour coming from the southwest, but everyone has their own preferences for a writing space, so if you like something different don't let me influence you too much^[2].

Once I've sat down I like to plan out my writing in the form of a flow chart stating my main purpose, supporting evidence, interesting notes on each important fact, a transition to a subtopic, a transition back to my main point, and a closing argument. I then crumple this up and toss it into a roaring fire and proceed to write whatever comes into my mind.

I like to use parenthetical statements to insert useful information (like the fact that when you flush a toilet in the southern hemisphere an angel gets its wings) and footnotes for notes that I believe are important to my arguments but would interrupt the flow of my writing if^[3] inserted directly into the text. As I write I like to do my research as each topic comes up. I try to use credible sources (such as Wikipedia, published research papers and dreams I had one time) in order to demonstrate that my jokes are of a higher quality than those some other humorists

might just 'make up.'

A final portion of my guide lines to writing are to fill up space, because people think things are more convincing if they look longer. A final portion of my guide lines to writing are to fill up space, because people think things are more convincing if they look longer. A final portion of my guide lines to writing are to fill up space, because people think things are more convincing if they look longer^[4]. Sometime I'll even insert something nonsensical or order to get a column to a publishable length.

After I've completed a rough draft of a column I like to (and I recommend you do this too) submit it to The Tech. Some people will suggest editing to remove things like sentences in which I've forgotten to insert a verb, typos and jokes that not even I find funny. I'm not one of those people.

Now you know enough to write your own humor column, but before I go I feel that because I was lying about all that stuff I said before, I should give you a few more tips to make sure your writing can someday rival someone who is almost as good as me, but not quite.

First, make sure you use the term 'monkey' in everything you write. Monkey's are funny, and you should let those flea infested little rascals keep that all for themselves. Second, it is important to remember that the truth is probably boring, and you should avoid it whenever possible. Just the other day I found this came in useful when I was attacked by a rhino and had to use my super-

jitsu karate powers to defeat it^[5].

My third, and final, piece of advice to anyone looking to write a humor column is this: wait until I graduate, because it is considered very impolite to get all up in my territory. I hope you can use the column to change your life from a meaningless pot of drudgery to something exciting and full of checks for at most twenty dollars from The Tech, but if you can't the fault is entirely your own, because I gave some really good advice up there.

(Footnotes)

¹ Although 'technically' sending me an e-mail saying "Hey, you writing a column this week?" isn't begging on bended knee, I think the sentiment expressed is pretty much the same.

² Hemmingway preferred a humidity level of 42% for example, and Herman Melville would only write while hanging upside down by his feet and being sprayed with a hose by a midget dressed as a monkey.

³ A useful footnote can include a joke about a pirate, a little known fact about how flashlights work or even a historical example of the point being made, such as when Prussia used a footnote to take control of several other German states in 1492.

⁴ A final portion of my guide lines to writing are to fill up space, because people think things are more convincing if they look longer.

⁵ See, the truth in this case, that I merely called the zoo and they flew the rhino away in an invisible helicopter, is far less interesting.



NEWTON'S THREE LAWS OF GRADUATION

Having postulated the first two Laws of Graduation, Isaac Newton the grad student was still perplexed by this paradox: If indeed the first two Laws accounted for the forces which delayed graduation, why doesn't explicit awareness of these forces allow a grad student to graduate?

It is believed that Newton practically abandoned his graduate research in Celestial Mechanics to pursue this paradox and develop his Third Law.

THIRD LAW

"For every action towards graduation there is an equal and opposite distraction"

This Law states that, regardless of the nature of the interaction with the advisor, every force for productivity acting on a grad student is accompanied by an equal and opposing useless activity such that the net advancement in thesis progress is zero.

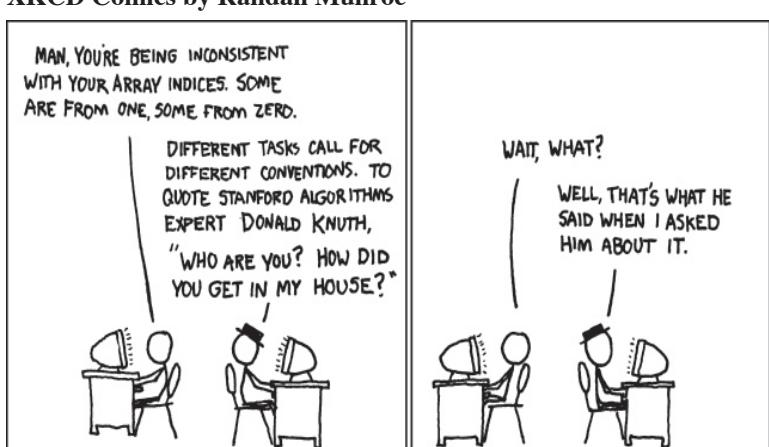
Newton's Laws of Graduation were ultimately shown to be an approximation of the more complete description of Graduation Mechanics given by Einstein's Special Theory of Research Inactivity.

Einstein's theory, developed during his graduate work in Zurich, explains the general phenomena that, relative to the grad student, time slows down to nearly a standstill.

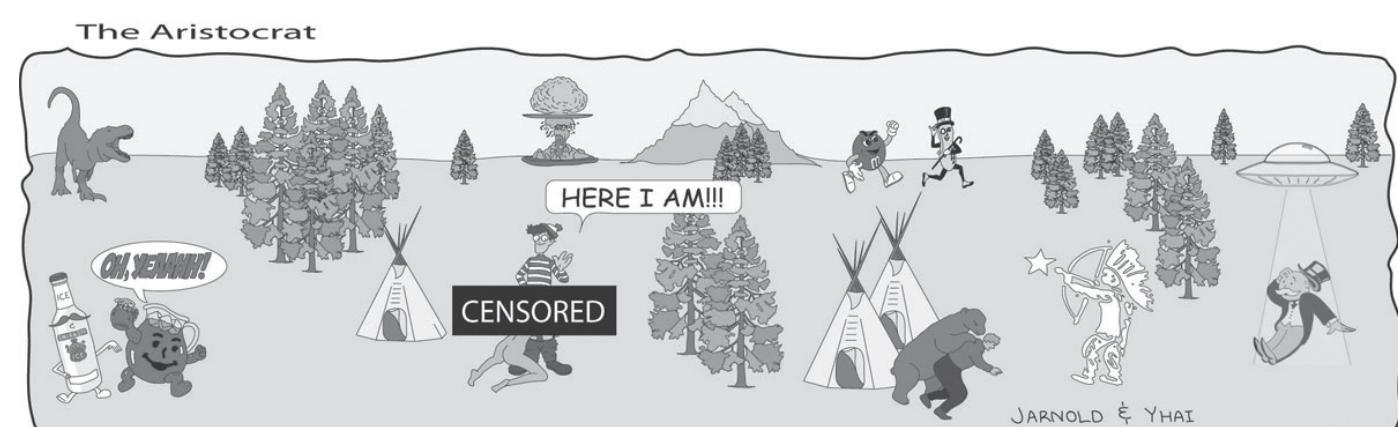
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