Math could save life, grow investments

BY DAVID GOORKIN

Bobbi Teenager is driving down the highway near home to meet a few of his friends. It's been a chilly day and — unbeknownst to Bobbi — the roadway is now covered with "black ice," uncontrollable and deadly. Suddenly, Bobbi spies an obstruction in the road — another car is dead, sitting directly in his path! Bobbi slams on the brakes and swerves but since his car is on ice, the swerving causes the wheels and Bobby to skid wildly out of control.

"In Bobby's case, the solution to a simple set of 30 ordinary differential equations could have prevented horrible death and/or injury," Bobbi expounded upon the history of using computers to solve complicated problems in the mathematical world. In addition to car skid concerns, MATLAB has been used to decrease seek times on all forms of digital media readers and increase read-restart ratios for investors. Moler claims that easy-to-use packages such as MATLAB aid engineers to design simple solutions to complex problems.

Bobbi, a former Caltech undergraduate, spent much of his talk giving examples specific to MATLAB, but he also delved into the physical and mathematical underpinnings of how MATLAB and other math programs work. Via the car skid and investment problems, Moler demonstrated how a rather complex set of non-linear equations (with a large number of degrees of freedom) could be reduced into a solvable problem using MATLAB utilities.

Although the focus of his talk was engineering applications for MATLAB in the business world, Moler was quick to point out how valuable knowledge of computational utility is for scientists and students alike. His urging to the audience to explore the power of mathematical packages rang true, for those who listened knew that if math could save little Bobbi's life, it might well save their own one day.

Admissions
STAFF BLAMED FOR WWII

BY JON FYSTER

On November 10th at the Pasadena Civic Auditorium, Dr. Jean Kirkpatrick laid the blame for Hitler's entry into politics and subsequent initiation of WWII on the admissions staff at the Vienna Academy of Fine Arts, where Hitler was twice rejected. As Kirkpatrick put it, those were the two most expensive rejection slips ever.

This digression was merely a sample of Dr. Kirkpatrick's engaging and informative talk entitled, "The Great People Who Make Great Events." Her view of history is very much opposed to the Communist view that she helped contain during her term as US representative to the UN under Reagan. She believes that people with extraordinary vision, whether noble or twisted, take advantage of the situation and the apathy of others to change the world. Hitler, Mussolini, Lenin, along with Churchill, Roosevelt, and Truman, were all examples of surprising leaders; men with very little in common except that they had a definite vision or plan for the future.

On the day after the 10th anniversary of the fall of the Berlin wall, Kirkpatrick also included Reagan, under whom she served as a member of the Cabinet and NSC, in this group of surprising visionaries. She discussed his inexpertise when he first came into politics, which was overcome with his ability to learn very fast and she highlighted his clear sense of what he felt had to be done to contain Communism. Reagan was "not a patsy," a belief she iterated several times, recalling many occasions on which she watched him deal with Soviet leaders. She regretted that he was not in a position to have the last laugh now that his "crazy" idea of an SDI may come to fruition.

In the end, she called for us not to sit passively by while men with great but twisted visions threaten the security of the world. As she put it, "No matter what we face, if we think clearly, and act boldly, and do not let others who will see even more clearly, and lead us through."
**News**

**LETTERS TO THE EDITOR**

**Web Curriculum has its own merits, applications to advanced technology**

Ken Walsh powerfully argued for curriculum change in last week’s letter “Please Offer Sex110abc.” I’m not really qualified to teach the course that he suggests but I would like to clarify a few things about our software engineering for Web applications course.

We don’t offer our class because there were 70 really smart students who wanted to take it. We don’t offer our class to teach students about any particular software product, open-source or otherwise. We don’t teach our class because the Web is “in.” We teach the course because it introduces students to a broad range of advanced computer science topics within a context that will be familiar and relevant to them. Many of these topics aren’t covered at all in the current Caltech CS curriculum.

For example, Caltech has no class on relational database management systems, the core enabling information system technology of the last thirty years. We could adopt a traditional course and traditional textbook in this area, but the students would fall asleep writing accounting system queries for a fictional company. In our course, students learn about the same issues of 1) concurrency and transactions 2) relational algebra 3) declarative query languages in general and SQL in particular Is it so terrible that they don’t fall asleep while learning this material? Is it so terrible that they can’t imagine a world class web service after taking the course? If Caltech wants to give them a one-quarter course on mathematical methods of atomic transactions, that would be great. Having taken our course, they’ll at least understand why the problem is important.

Bottom Line: our course might attract as many students as Sex110abc, but rest assured that the underlying content is as dreary as any other CS course.

Please don’t agree with the guy who started this at MIT. Come to Philip Greenspan’s one-day seminars at Caltech November 13th and 14th in Baxter Lecture Hall. Details at http://www.caltech.edu/ clark.

Sincerely,

Aurelius Prochazka, Ph.D. (Caltech ’97)

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**The Outside World**

by Nicholas Breen

Bogota, Colombia - Seven people were killed by a car bomb outside a busy shopping center, with dozens more wounded, midday Thursday. The second bombing in a week, it is considered retaliation for the Supreme Court’s decision to extradite two suspected drug traffickers to the United States for trial. This would be the first such extradition since 1991. President Pastrana responded to the attack by ordering the suspects’ immediate extradition.

Foggia, Italy - A six-story apartment building collapsed early Friday morning. Seventeen people have survived, out of approximately 35 who were believed to be in the building at the time. Fire continues to burn beneath the structure, hampering attempts at rescue, and authorities do not expect to find any more survivors. The cause of the collapse is still unknown, although structural failure is considered most likely. The building dates to an economic boom in the 1960’s, when the high rate of construction meant that building codes were often ignored.

London, England - Parliament has passed the House of Lords bill, the first step in eliminating that 800-year-old body. Nearly 600 hereditary peers will be leaving the House, and the remaining 92 are will most likely receive the cut when the next step is implemented. Although the House of Lords has little real power, abolishing the Tory-dominated chamber has long been part of the Labour party platform. Under the Labour leadership of Prime Minister Tony Blair, plans to replace the House with a democratically-elected body have been proceeding.

Santa Monica, California - In recent weeks, the cities of Santa Monica and San Francisco have passed ordinances banning ATM surcharges for use by customers of other banks. Several other cities in California and New York have such legislation pending. In retaliation, Bank of America and Wells Fargo have reprogrammed their Santa Monica ATMs to reject all customers from other banks. Bank spokesmen defend the move as necessary to protect their own investments, and plan to add the ban to San Francisco soon. The banks have also challenged the legality of the ordinances in federal court, with the first hearing set for Monday.

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**HELP US CREATE THE FUTURE OF BRAIN-COMPUTER INTERFACES**

The research group of Dr. Steve Potter in the Division of Biology, in collaboration with Physics Professor Jerome Pine, is creating a two-way link between cultured brain cells and an SGI S40 NT workstation (with 4 Pentium III Xeon 550 Mhz processors).

We are looking for a responsible part-time programmer who has experience with hardware-level programming, including device drivers, to help create a real-time neural stimulation and data acquisition system.

See http://www.caltech.edu/~pinelab/PotterGroup.htm

If interested, drop by 326 Kerckhoff, or email spotter@eg.caltech.edu

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What about Iraq?

Stop the bombing, end the sanctions

BY SONALI KOLHAPAR

It seems we have all forgotten about that far off country called Iraq. Our senses have been dulled by catch phrases such as "no-fly zones," "weapons of mass destruction," etc., etc., which are nauseatingly overused in the press as terms like "ethnic cleansing" or "national security." Today we barely see or hear anything in the newspapers about the regular air strikes by the United States and the United Kingdom or the continual economic sanctions against Iraq. Is it not shocking to the majority of normal, compassionate individuals in the world that a country torn by poverty over nearly a decade of economic sanctions and ravaged by the after effects of anti-tank bullets suspected to be toxic, is being bombarded daily from the skies by the bastions of Western Civilisation within their self-declared "no-fly" zones? Since January 1999 the US and UK have performed well over 200 air strikes against Iraq, routinely killing and injuring civilians - the very civilians who the so-called Allied Powers claim to be protecting from Saddam. Among the targets destroyed by US bombs were the UN World Food Program warehouse holding 260,000 tons of rice, Qumah hospital in Basra, a cotton factory in Baghdad, a main water system in Karbala, a secondary school in the Northern Kurdistan, and a grain storage building in Saladiya (taken from a UN Security Council report in January 1999).

Additionally, over 50 civilians have been killed by bombs, and nearly 200 wounded since this January. Over the last year I have constantly heard the following response to any arguments against the bombing of Iraq and the sanctions against it: "well, if only those Iraqis would oust that tyrant Saddam, everything would be wonderful, the sanctions would be lifted, the bombs would stop." The implication of this evasive position being, "and while they allow him to stay in power, the Iraqis are suffering a well-deserved fate".

What does the world gain by imposing sanctions on Iraq, a country devastated and falling apart under the weight of 8 years of US/UK aggression? Perhaps one can discern the massive Western concern over an Iraqi threat by examining some of the items banned to the Iraqi people as part of the sanctions which include an oil embargo. Among them are: ambulances, basic medication, books, magazines (including scientific and medical journals), bicycles, toys, cameras, chessboards, tissue paper, toilet paper, candles, carpets, watches, flower pots, forks and knives, pens, shampoos, thermometers, petroleum jelly, and even waffle irons. (Compiled by E. Davidsson, December 1997). And this is just a fraction of the entire list.

If the list of banned goods seems to imply something other than a way to render harmless the Iraqi dictator, one could examine the direct effects of the sanctions on Iraq in order to assess their efficiency at subverting possible aggression by Saddam Hussein. One year ago, a Reuters report (August 1999) quoted 1.4 million Iraqis were dead as a result of the US/UK backed sanctions. Former United Nations humanitarian coordinator for Iraq, Dennis Halliday, who resigned in protest of the sanctions last year, reported that 5000-6000 Iraqis are dying each month (London Guardian, January 1999) and pleaded "We must find another solution." Most analyses admit that the sanctions increase the Iraqi leadership and further weaken the people of the country. A 1998 UNICEF report on the effects of the sanctions imposed on Iraq finds that the alternative solution, a UN-sponsored "Oil-for-Food plan has not yet resulted in adequate protection of Iraq's children from malnutrition and disease. Those children spared from death continue to remain deprived of essential rights." Meanwhile, Saddam Hussein stays firmly in power.

The countries most responsible for the suffering of Iraqi people are the United States and the United Kingdom who have openly defied the UN Security Council's unanimous rejection of their use of force by continuing air strikes against Iraq and vehemently supporting the economic sanctions. A March 22, 1991 New York Times article explains the United States' reasons for keeping the sanctions in place: "...by making life uncomfortable for the Iraqi people it will eventually encourage them to remove President Saddam Hussein from power." This attack on the people of Iraq is in direct violation of numerous international agreements, among them the Geneva Conventions, the International Conference on Nutrition, the Constitution of the World Health Organization, the Convention on the Prevention and Punishment of the crime of genocide, the Convention of the Rights of the Child (which the United States alone refuses to ratify), the UN Universal Declaration of Human Rights, and, ironically, satisfies the conditions that define international terrorism according to the United States Legal Code (Title 18 §2331). Additionally, according to Noam Chomsky, a leading foreign policy critic, "It costs the US/UK nothing to keep a strangl­

bombing and starving of millions of innocent Iraqis. Contact your elected repre­

sentatives and urge them to support an immediate end to bombs and sanctions. Take some time out to join activist groups in the Pasadena and Los Angeles area such as our very own Caltech Progressive Coalition www.uceat.com/progress, or the International Action Center in Los Angeles www.iacta.org when they organize demonstra­

tions to express opposition to the US/UK policies on Iraq. Join the women and men of Voices in the Wilderness www.nowilderness.org who send delegations bring­
ing food and medicine to the people of Iraq by openly defying the travel ban to Iraq in protest of the sanctions. Let us not wait be­

fore it is too late. As informed and educated citizens and students, it is our duty to speak out against the crimes committed by the US gov­

ernment against Iraqis in our name.
Inner Y

Just When You Thought it was Safe to Read The Tech...

By Jason Meltzer

It’s 2 a.m. and I am sitting in front of a computer screen at Palomar Observatory taking data for the Digital Sky Survey and writing this column. It’s the most fun I’ve had in weeks. No, that’s a lie, but I’ll expound on it after a minor digression. The most fun I’ve had in weeks occurred last night, when I went to see a very odd movie: “Being John Malkovich.” This was perhaps the strangest and funniest movie I’ve seen in a long while. I highly recommend it, though those of you who don’t appreciate odd and/or sexual humor may not like it.

Now, where was I? Ah yes. I’m at Palomar, writing my column while I wait for an Abell cluster to expose. I’m not even an Astro major; I’m in engineering. I suppose I could launch into another “why Caltech is so cool” column from this point, but I won’t. And because you all loved it oh-so-much last week, I will now present you with another ticker tape of wonder, of fully bitter rhetoric from your truly.

First off, I am increasingly concerned with the use of disclaimers on my recent columns in the Tech. I’m afraid at some point they’ll just replace the entire logo with one! (Don’t even think about it...) And just to be sure, I don’t really hate you all, as the last one claimed, just most of you. “You” being the general populace, not necessarily Techers. For the most part, I think people at Caltech are the best society has to offer. Pretty sad, huh?

My primary concern today is how the pressured graduate students at science and scientists. Many things bother me about how we hearthen and dim-witted undergrads (I almost used the word “stupid.” For more information — very accurate) — who have an unfortunately large amount of control over our lives — view people of science, and indeed science. The average guy on the street doesn’t know jack about science. Hell, half of them probably still think that the sun goes around the Earth. But for the most part, the average guy on the street doesn’t know the right sequence of magic spells every so often you’ll be forever tormented in some horrific afterlife by little red men with horns! (Actually, lots of them believe the latter, but that’s another story.) They don’t know anything about how science works, why it works, and who works on it. Why is this, you may wonder? Well, my answer is pretty simple: they’re stupid. Not only are they stupid, but they are stupid and lazy. The lazy part is pretty important, because I think that most people can pretty much understand most ideas, it’s just that the “average” person doesn’t put in the effort required to overcome the inertia of his inferior intellect. The “average” person will be content with letting others do the dirty work of figuring out the mysteries of the universe and designing his cell phone and television, while he wastes his time on the trivial details of the very small (which makes him feel, sometimes not even terribly much of that).

The situation is even worse, my friends, than my previous column indicated, because not only are these people ignorant, they are ignorant en masse in a democratic society that bases its standards, laws, and Wellness on the will of the stupid! Yes, stupid people are, at least, the theoretical base of power in this nation. And that means they have the power to decide things that will affect you life as a scientist (and a generally intelligent person). How so? Well, the obvious one is funding. NASA, the NSF, and various other groups are controlled by the government. The government tells them how much money they get to give to people in basic research, and guess who tells the government what to do: the stupid people! Money is not their only source of ignorant power, however. They can also pass laws that are allowed by the government to become a law. Until they’re gone, just remember: you’re probably smarter than them, so take advantage of it.

Next Week:
The Caltech Jazz Band will be performing in our Noon Concert series on the north side of the Student Center. If you want to relax for a moment and listen to musicians of the Caltech community, the north side of Winnett is the place to be during lunch.

Federal Work Study, you will be compensated at $12/hour for your services. For more information, please contact the Y at ext. 6163. While you’re calling, ask about the other service activities we sponsor. Also, if you have an ear to organize some thing like a hiking or biking trip, you could try doing it through the Y. For those who are planning on going camping in the coming holidays, keep in mind that the Y rents out various forms of camping equipment. Contact the Y for more information.

This Week:
As usual, Project Angel Food will be occurring today. This program involves delivering food to housebound people living with HIV/AIDS. It takes but one hour of time on Friday from 12 p.m. to 1 p.m. For more information, call Yin Yin Tian at yang@its. Today the Caltech Jazz Band will be performing in our Noon Concert series on the north side of the Student Center. If you want to relax for a moment and listen to musicians of the Caltech community, the north side of Winnett is the place to be during lunch.

This week, we will be performing our Social Activism Speaker Series on Friday, November 19th. Dolores Huerta will open the series, speaking on the topic “Political Organizing: Key to a Non-Violent Movement.” Huerta is renowned for co-founding the United Farm Workers of America (UFW) union with Cesar Chavez, who called her “totally fearless, both mentally and physically.” Her accomplishments include collective bargaining for farm workers, banning dangerous pesticides and increasing the Federal Minimum Wage. Currently, Huerta holds the position of Secretary-Treasurer of the United Farm Workers of America, AFL-CIO. Huerta will be holding her keynote talk in the Beckman Institute Auditorium at 7:30 p.m. This talk is open and free to the public. If you would like to receive e-mails about U-events, Y-outdoor events or Y-community service events, please e-mail Elisa Chiang at polarm@cco.caltech.edu and state which mailing list you would like to be placed on. The California Tech

inner space

The holiday season is now slowly encroaching upon us. Unfortunately, as Tech students, we still have to trudge through weekly homework sets and make sure we don’t go completely insane at the thought of final examinations. So, here’s a little blurb about something other than academics. The Y is in need of volunteers to tutor middle and high school students. Remember, if you are on November 12, 1999
Pokémon: The First Movie

MEWTWO STRIKES BACK

For those of you not in the know, a brief introduction is in order. The Pokémon world is inhabited by Pokémons instead of animals. There are over 150 varieties of Pokémons which can be caught and trained by humans. Each of these 150+ Pokémons have different abilities and strengths. For example, electric Pokémons are strong against water Pokémons. The protagonist, Ash Ketchum, is a Pokémon trainer. He and his friends Misty and Brock travel together on a simple mission: capture Pokémons, teach them and pit them against those of rival trainers to make them stronger and more experienced. This is the premise of the cartoon and Gameboy game, Mewtwo Strikes Back is about Mewtwo, a feline biologically engineered Pokémon clone. He is designed to be the strongest Pokémon in the world, stronger even than Mew, the supposedly extinct psychic Pokémon whose DNA was used in the cloning procedure. Mewtwo’s strength is apparent within moments of his awakening as he destroys the island lab of his creators in a scene that is supposed to be poignant just turn out goofy. There were still a few nicely done scenes, and the Robert Richardson cinematography was quite energizing, but over all this was very minor Scorsese.

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We are brought to tears when Ash’s Pikachu refuses to fight and is reluctantly slapped in the face by his poké-clone. We are at the edge of our seats when the evil Pokéballs are chasing Pikachu and he can do is run as fast as he can and electrocute with a thunderbolt from his red cheeks until he can’t carry on any longer. We are moved by Ash’s braveness as he stands up to Mewtwo. But then the movie fails miserably with its lame attempt to tell kids that they can accept each other’s differences and that neither human nor Pokémon need to fight. It proceeds to throw in the song styles of such artists as Britney Spears, NSYNC, 98 Degrees and Baby Spice. It would have made sense to have the pumping techno track from the trailer blasting us out of our seats during the climactic battle sequence between Mewtwo’s new breed of Super Pokémon Clones and Nintendo’s intentions. I think they are clear. With a hit cartoon, airing 12 times per week, 3 Gameboy games, a Nintendo 64 game, a trading card game, a Burger King promotion consisting of a different toy every day for 3 months, countless toys, clothing, back packs, and school supplies, and a first movie, I see them milking this cash cow for all it’s worth and then some. Here’s looking forward to the Pokémon: The Second Movie.

We are brought to tears when Ash’s Pikachu refuses to fight and is reluctantly slapped in the face by his poké-clone.

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Visit our on-campus branch, join and apply for your low-cost Visa at the same time. CEFCU is an equal opportunity lender.
THE ATTENDANCE AWARD GOES TO JUDY FOR MISSING THE MOST DAYS.

...AND SINCE OUR BONUSES DEPEND ON THINGS WE CAN'T CONTROL...

...CAN MY BE BASED ON THE PERFORMANCE OF SOME OTHER COMPANY?

YOU ASK ONE QUESTION AND SUDDENLY YOU'RE NOT A TEAM PLAYER.

I'LL REDUCE TURNOVER BY SHOUTING 3 CARE ABOUT YOU.

TELL ME ABOUT YOUR KIDS, ASK.

I DON'T HAVE ANY.

ALICE, I CARE ABOUT YOU...

BUT ONLY ENOUGH TO IMPROVE YOUR MORALE, NOT ENOUGH TO BE ILLEGAL IN ANY WAY.

SO, TELL ME ABOUT YOUR HEALTH IN THE LEAST SPECIFIC WAY POSSIBLE.

DO YOU MIND IF I PRETEND TO LIKE YOU? I HEAR IT INCREASES PRODUCTIVITY.

I'LL COME AROUND THE DESK SO IT APPEARS THAT I CONSIDER YOU AN EQUAL.

I NEED TO GO BACK TO MY CURSE RULE NOW.

IT'S WORK!!

SO, WHAT'S YOUR LITTLE MIND?

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I'LL COME AROUND THE DESK SO IT APPEARS THAT I CONSIDER YOU AN EQUAL.

I NEED TO GO BACK TO MY CURSE RULE NOW.

IT'S WORK!!

SO, WHAT'S YOUR LITTLE MIND?

THE ATTENDANCE AWARD GOES TO JUDY FOR MISSING THE MOST DAYS.

...AND SINCE OUR BONUSES DEPEND ON THINGS WE CAN'T CONTROL...

...CAN MY BE BASED ON THE PERFORMANCE OF SOME OTHER COMPANY?

YOU ASK ONE QUESTION AND SUDDENLY YOU'RE NOT A TEAM PLAYER.

I'LL REDUCE TURNOVER BY SHOUTING 3 CARE ABOUT YOU.

TELL ME ABOUT YOUR KIDS, ASK.

I DON'T HAVE ANY.

ALICE, I CARE ABOUT YOU...

BUT ONLY ENOUGH TO IMPROVE YOUR MORALE, NOT ENOUGH TO BE ILLEGAL IN ANY WAY.

SO, TELL ME ABOUT YOUR HEALTH IN THE LEAST SPECIFIC WAY POSSIBLE.

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SO, WHAT'S YOUR LITTLE MIND?
It has been all over the radio for a week now, it has been all over the newspapers (at least it was before the EgyptAir catastrophe), it has been discussed on talk shows, and has rocked the nation's financial markets. There are those who applaud and those who boo, there are serious interviews and there are those who see nothing new. And what is it? Something as important as Chechnya or Ingushetia? A good try, but no, it is all taking place here, in the USA.

You give up? Well, OK, I'll let you off the hook. It is all about the man we love to hate, the boy genius, entrepreneur fantastic, Bill Gates. By astute wheeling and dealing, and with a knack for predicting what tools will be required to run once and future computers, he has passed the California Tech computer at the time it came out and coveting one for myself; but I was a dream along with his friend Allen. The pair was inspired by stories about crass utilitarians, the Gates' of the world, technocrats, gray, drab (looking) personalities. Their dyspeptic appearance is nothing like that of the Aga Khan, who was worth his weight in gold, diamonds and platinum (see the old photos at globale.net/heritage/sultan/jubileegy.html). Things have come to a pretty pass when such exotic and romantic images as those of the Khan with "bullet-proof boxes of diamonds," are pushed aside in the news by stories about crass utilitarians, the Gates' of the world, technocrats, gray, drab (looking) personalities. Their dyspeptic appearance is nothing like that of the Aga Khan, who was judging from his pictures was obviously a lover of all the good things life has to offer.

We should not be too harsh on our tarians, the Gates' of the world, as the richest man in the world in part with becoming noticeable as the Nazi's right to march in Skokie, even though many upright citizens were in the best perceived interest of the citizenry.... So could it be that the frustrated interviewer's statement indicates an erosion of confidence in our judicial system? There are already some time in the future be drawn of these omissions, those who want to believe that the fire in the Branch Davidian compound had been set by the Feds, rather than by Koresh and his followers, now have more ammunition to use for their cause. More disturbingly than that, once it is known that some things are swept under the carpet sometimes, it becomes impossible to completely trust the system on other occasions. How can one believe that true justice is ever achieved?

And justice for all

that's not really where I want to go.

What actually intrigued me and got me started thinking was an NPR Morning News interview of Seattleites (if candidate Bush can make up names, so can I) by reporter Wendy Kaufman. Some of the people she spoke to thought that Judge Penfield Jackson's finding of fact last Friday - that Microsoft had wielded monopoly power to harm consumers and squelch competition - was not appropriate. One said that the judge's evaluation of Microsoft was "ill advised;" someone else, that it was "a knee jerk reaction." Another interviewee went much further, saying he thought that the judge had already made up his mind before hearing the evidence, else the judge could not have reached the conclusion that he did. So far as I can tell, there is nothing to support this latter assertion, and it was probably uttered in frustration. All these comments must of course be taken with a grain of salt, and pepper too; better yet, gallons of coffee. Shopkeepers from Seattle and its surroundings are rightly afraid of losing business, and inventors of losing money, maybe even their retirement nest egg if Microsoft should stumble. In fact, Microsoft stock did drop in value after the judge's announcement, but soon recovered as the market realized that there was a long way to fall before the company would go belly up. One commentator recalled that splitting AT&T into a bunch of Baby Bells ended up being quite profitable for the investors.... why should it be different in the case of Microsoft if it too should be dismembered? While it is rather unlikely that the judge would have prejudged the case, the mere fact that the possibility came up, is a worrisome signal. The American Way relies on the unerring functioning of the judicial system, as unerringly as humanity possible. It would be shocking if decisions had been reached on faulty premises even if they were in the best perceived interest of the citizenry....

It's no secret—you can get into business school without full-time work experience, but do you know what the risks, rewards, and tradeoffs are?

Come to a free workshop that will introduce you to a process that can help you evaluate all of your options. And, after attending the workshop, talk with school representatives and alumni at the MBA Forum®.

Plan to join us on Saturday, November 20 at 11:00 a.m.
November 12, 1999

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Mints

The California Tech

ANNOUNCEMENTS

The Gay/Lesbian/Bisexual Discussion Group will meet on the Gay/Lesbian/Bisexual Discussion Group, which meets on the first and third Tuesdays of each month from 10:30 a.m. to 11:30 a.m. in the Health Center lounge. This is a confidential meeting and does not imply anything about a person’s sexual identity. The group usually discusses a particularly relevant topic and then moves on to the general discussion. Refreshments are served. For more information, call x3831.

The Dean of Students Office needs tutors in all areas — help is especially needed with the main Institute requirements: Calculus, Physics I and II, Chemistry, and English. For more information, see Sandra located in 102 Parsons-Gates.

The Totem, Caltech's literary magazine, welcomes written and artistic contributions and editorial input. Starting this year, we are seeking graduate student writers in addition to undergraduates. Please email toto@it or mail to Totem Editor, MSC6910 with your submission, and also to be added to the mailing list.

The Caltech Ballroom Dance Club [CICDC] will be starting their next series of classes, i.e., for the second quarter. For more information, see caltech.edu/dance or call 627-791-3103.

H & S Division offers the following Selected Topic Courses for winter 1999-2000: "Power, Personality, and the Ability to Communicate" with Elizabeth H. Geis; "Gender and Feminism: An Introduction with Tanya S. Hiraoka"; "America's Teaching Fellowships: A Case Study in the Education of Teachers" with Edward W. May; "The Liberal Arts and the Development of Critical Thinking" with David L. Miller; "The Psychology of Probability" with Copies of HSS course schedules are available in 228 Baxter.

Hollywood Square — If you have a group of 15-25 people, age 16 and older, you can have fun and earn money by working as an extra in a professional studio audience. Reservations are being taken for the following dates with arrival times of 10:00 a.m. and 1:00 p.m.: Nov. 6, 7, 13, 14, 20, 21 and Dec. 4, 5, 11, 12. For more information, call 323-575-2447 and ask for Karen or Heather.

The Opus Chamber Orchestra will perform live at the Pasadena Civic Auditorium, Nov. 14, 23:00 p.m.; $16; call 818-623-7391 for more information.

The President’s Own” United States Marine Band at the Pasadena Civic Auditorium, Nov. 12, free admission, contact 626-795-9311 for more information.

Cal-Stewarts 26th Annual Toy Train Meet at the Pasadena Center, Nov. 14, 10 a.m. to 2 p.m., $5 admission; call 909-860-2122.

John Moran Auctioneers Antiques and Decorative Art Auction, Nov. 15, at the Pasadena Center, 3:15 p.m. Preview and 6:15 p.m. Auction. Call John Moran Auctioneers at 626-793-1833 for more information.

What do Collapses of Past Societies Teach Us About Our Future? — Sponsored by Janice Do, professor of philosophy at the UCLA School of Medicine, at the Central Europe roku's Central Library's Mark Taper Auditorium, $10, Sunday, Nov. 14, 2 p.m., reservations are advised, call 213-228-7025 for more information.

The Caltech-Occidental Concert Band, directed by William Bing, presented a free concert featuring Music by Ives, Copland, Holst, Tchielic, at the Academia Auditorium, Fri., Nov. 19, 8:00 p.m., featuring tuba soloist Brad Doyley, and guest conductor Paul Asimov and Jason Chua. For information, contact 626-395-4662.

Earthquake Preparedness Training will be offered by the Pasadena Fire Department through the Safety Office. Training will be from 9:00 a.m. to 12:00 Noon in the Baxter Lecture Hall on Tuesday, Nov. 16th. Learn what to do, when, and after an earthquake. The session is limited to the first 100 people who sign up. For reservations call Caprice Anderson at 626-395-6727.

Stressed?? Sign up for the Stress Management Workshop. This workshop will include a mixture of information, music, and experiential exercises focusing primarily on basic relaxation techniques and time management skills. The workshop will meet on consecutive Mondays (November 8, 15, 22, 29) from 12:00-1:00 p.m. in the Health Center lounge. To register, please call x8331 to reserve your place in the group.

Caltech Instrumental Music Department presents the Caltech Swing and Jazz bands at a noon concert today noon to 1 p.m. in front of the Red Door Cafe, come and enjoy the jazz spirit.

Caltech Folk Music presents Chris Proctor, Sat., Nov. 13, 8:00 p.m. at Winnette Lounge, $12 general admission, $4 Caltech students and children.

Caltech will serve as host school for the 1999 California Intercolligate Athletic Conference (SCITAC) men's water polo championships, scheduled for Sat., Nov. 13, at Branford Pool on the Caltech campus in Pasadena.

A Caltech-Japan Internship Program Information Session will be held on Friday, November 19, 1999 from 12:00 noon to 1:00 p.m. in the Winnette Lounge. Pizza will be provided.

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The California Tech

Andover is in Massachusetts.

The Jewish Free Loan Association is offering interest-free student loans to qualified individuals for tuition, room and board, and some living expenses. Applicants must have completed a minimum of one year of undergraduate study and have a 2.5 GPA or above. For further information, please contact the Jewish Free Loan Association at (213) 761-8830 or (818) 464-3331.

The John Gyles Education Fund is offering scholarships awards up to $3,000 for the 1999-2000 academic year. Applicants must be Canadian or U.S. Citizens, have a 2.7 GPA or above, and demonstrate financial need. Criteria other than strictly academic ability and financial need are considered in the selection process. To obtain an application, send a self-addressed, stamped envelope to: The John Gyles Education Fund, Attn: Rick Carette, 3501 Terrace, Suite 102, Riverside Drive, Fredericton, New Brunswick, Canada E3B 5G4. Filing dates for mailing documents is January 1, 2000, with excerpts and abstracts that need to be included in the application package. For further information, contact: National Academy for Nuclear Training Scholarship Program, 700 Calhoun Street, Atlanta, GA 30307-2000. Contact: Office of Student Services, 400 North Main Street, Fredericton, New Brunswick, Canada. Entries must be submitted to the National Academic Institute by Jan. 29, 2000.

Glamour Magazine’s 2000 top ten college women competition has begun. This competition recognizes the exceptional achievements and academic excellence of female college juniors from across the country. It’s an ideal opportunity for talented students to be rewarded for their leadership roles in campus and in the greater community. Winners receive $1,000, coverage in the October issue, and the opportunity to meet with professionals in their fields, usually during a few days in the New York City. The competition is open to all full-time juniors regardless of major or GPA. All entries must be postmarked by Jan. 31, 2000. Contact: The Dean of Student Office, 102 Parsons-Gates, for the application.

The Elise Wiesel Foundation for Humanity announces the Elise Wiesel Prize in Ethics Essay Contest 2000, a national competition in which college students can analyze ethical issues confronting them in today’s complex world. Juniors and seniors are encouraged to compete for awards up to $5,000. Information is available at www.ewiefoundation.org, or call 212-490-7777.

To submit an event for the Mints, contact mints@tech.caltech.edu or mail your announcement to Caltech 40-55 Attn: Mints. Submissions should be brief and concise. Email is preferred. The editors reserve the right to edit and abridge all material. Deadline is noon Wednesday. Unless specified, all mints will run for two weeks.

American

Teaching

Fellowships


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The National Academy for Nuclear Training is offering $2,500 scholarships to eligible students majoring in nuclear engineering, power generation, health physics, or chemical, electrical, or mechanical engineering with nuclear or power options. Applicants must be U.S. citizens or national, considering a career in the nuclear power industry, minimum GPA of 3.0 as of Jan. 1, 2000, at least one but no more than three academic years of study remaining to graduation, and free of post-college obligations or active military service. Applications are available in the Financial Aid Office. For further information you may contact: National Academy for Nuclear Training Scholarship Program, 700 Calhoun Street, Atlanta, GA 30307-2000. Contact: Office of Student Services, 400 North Main Street, Fredericton, New Brunswick, Canada. Entries must be submitted to the National Academic Institute by Jan. 29, 2000.

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