

MIT Greets President Obama

By John A. Hawkinson
NEWS EDITOR

President Barack Obama will speak at MIT today “challenging Americans to lead the global economy in clean energy, and to highlight Recovery Act investments that are creating jobs and making advancements in wind energy,” the White House said.

At noon, the President will tour a research laboratory at MIT, and at 12:30 p.m. will address Kresge Auditorium, speaking to government and business leaders, as well as students and staff.

The number of MIT attendees will be small. Staff distributing tickets said there were a total of 200 tickets for students, faculty, and staff. Kresge typically holds more than 1,000 people.

Public viewing of the event will take place in rooms 4-237, 1-190, 26-100, 32-141, 32-155, E51-315, and the MIT Museum.

Obama will also advocate for the new Kerry/Boxer Senate climate bill, S.1733, according a *New York Times/climatewire* report. The House of Representatives’s climate bill, HR.2454, passed by a 219-212-3 vote in June 2009.

Senator John F. Kerry (D-Mass.) said, “I can attest from my meetings that the White House, the entire Administration, and President Obama

Obama & Protests, Page 13

MIT Seeks To Grow Its Research Abroad

In Singapore, a Foreign Government Funds Millions of Dollars of MIT Research

By Yuliya Preger

In its 2009 accreditation self-study, MIT identified global engagement as one of the top priorities in the coming years. Unlike some others, this initiative has remained untouched by the need for fiscal moderation.

Vice President for Research and Associate Provost Claude R. Canizaras explained that the economic downturn has “not really affected” MIT’s international research partnerships because the system is largely “self-supporting.” Foundations and

MIT May Cut Employee Pension Plans, Saving \$200M

By Vinayak Ranade
STAFF REPORTER

MIT may cut employee pension plans as part of a plan to save \$27–\$199 million over the next 2–10 years, according to the preliminary report of the Institute-Wide Planning Task Force released in August. The retirement plan cuts constitute much of the proposed cuts in workforce policies and practices recommended by the report.

The final report is expected to come out on Oct. 30, but these cuts will not become final before further discussions with service worker’s union SEIU Local 615 and possibly a faculty resolution. The final decisions, which are expected to be made in the spring, still rest in the hands of MIT’s top executives.

The report argues that pensions should be cut because the current system offers a strange incentive to retire: employees may sometimes get more money per year from retire-

Pension Cuts, Page 15



PERRY HUNG—TECH FILE PHOTO
President Barack Obama will encourage Americans to lead the global economy in clean energy during his speech today in Kresge Auditorium at 12:30 p.m. Obama is pictured here with Governor Patrick during his campaign stop in Boston in February 2008.

foreign entities typically provide the start-up costs.

The Singapore-MIT Model

The Singapore-MIT Alliance (SMA), which has endured since 1998, serves as a prime example of this system. According to Canizaras, “the National Research Foundation of Singapore funded this alliance” since they were “keen” to harness the capabilities of MIT, particularly “in the areas of environmental monitoring and testing.”

Over the past 10 years, the pro-

gram has expanded to fields such as chemical and pharmaceutical engineering and computation and systems biology.

Global MIT, Page 13

Task Force Suggests Increasing Transfers, 3+2 Masters Program

By Aparna Sud

Is MIT really going to increase the undergraduate class size? MIT isn’t sure when or how much, but some sort of increase looks likely.

MIT’s Institute Planning Task Force has suggested that MIT can accommodate a small increase in undergraduates without raising the total cost to educate the undergraduate body, and without compromising MIT’s academic excellence. An increase of 10 percent would generate \$4M in additional revenue, the Task Force preliminary report noted.

The costs of an increase need to be considered as well. Vice Chancellor Steven R. Lerman ’72 points out extra classrooms for already-full freshman General Institute Require-

ment classes, like 8.02 TEAL, would cost money and could offset revenue.

But increasing the number of undergraduates may not simply be increasing the freshman class size.

Lerman suggests three other approaches that might be more likely: increasing the number of transfer students; implementing a “3+2” program to grant a five-year bachelor’s degree to students who have attended three years at another institution and two years at MIT; or a “3+2” program that grants a master’s degree.

According to Lerman, adding more freshmen does not seem to be the best option for GIR classes near their capacities. The ability of espe-

More Undergrads? Page 14

Should MIT Have Fewer Grad Students? Admins Still Evaluating Options

By Ana Lyons

STAFF REPORTER

Among the 200 cost-cutting ideas presented in the preliminary Institute-wide task force report, several ideas stand out for their potential to impact graduate student life at MIT, if implemented:

- ¶ “Right-size” graduate student body
- ¶ Reevaluate TA costs
- ¶ “3+2” transfer programs
- ¶ Online-based masters degrees

Some of the ideas pertaining to graduate student life — made public

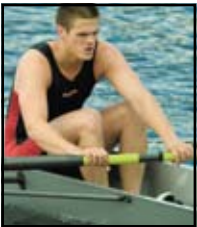
this past August with the release of report — were discussed in the September community forums, and have since gained the attention of MIT’s Graduate Student Council.

GSC President Alex Hamilton Chan says that the GSC plans to release a short memo next week to the Deans for Graduate Education and Student Life and the Chancellor, addressing some of the GSC’s concerns with those ideas.

Fewer Grads? Page 15



OSCAR A. VIQUEZ ROJAS
Nym (Susan C. Flowers ’13, left) and Pistol (Jacob L. Austin-Breneman ’13) plot their revenge against Falstaff during a dress rehearsal of the MIT Shakespeare Ensemble’s rendition of *The Merry Wives of Windsor*. Performances will take place in La Sala de Puerto Rico Oct. 22–24 and Oct. 29–31 at 8 p.m.



Photos and an essay about the 2009 Head of the Charles

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The Nobel Prize is a joke.

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WORLD & NATION

Trading Gains on Profits Despite Job Loss Reports

By Javier C. Hernandez

THE NEW YORK TIMES

Stocks moved upward on Thursday, riding momentum from stronger-than-expected earnings reports despite a round of jobless figures that showed persistent weakness in the labor market.

An assortment of companies, from AT&T to Xerox, reported higher-than-expected earnings, feeding the hopes of investors that the earnings season would remain positive. AT&T said it earned \$3.19 billion, or 54 cents a share, in the third quarter as the Apple iPhone helped attract 2 million new wireless customers. Its profit topped Wall Street forecasts for 50 cents a share.

Adding to the optimism, a report on leading economic indicators released Thursday showed an improved outlook for the general health of the economy.

The Dow Jones industrial average rose 131.95 points, or 1.33 percent, to 10,081.31, one day after it closed below 10,000. The Standard & Poor's 500-stock index jumped 11.51 points, or 1.06 percent, to 1,092.91. The Nasdaq composite index gained 14.56 points, or 0.68 percent, to 2,165.29.

Labels Show Swedes Their Food's Carbon Footprint

By Elisabeth Rosenthal

THE NEW YORK TIMES

STOCKHOLM

Shopping for oatmeal, Helena Bergstrom, 37, admitted that she was flummoxed by the label on the blue box reading, "Climate declared: .87 kg CO2 per kg of product."

"Right now, I don't know what this means," said Bergstrom.

But if a new experiment here succeeds, she and millions of other Swedes will soon find out. New labels listing the carbon dioxide emissions associated with the production of foods, from whole wheat pasta to fast food burgers, are appearing on some grocery items and restaurant menus around the country.

People who live to eat might dismiss this as silly. But changing one's diet can be as effective in reducing emissions of climate-changing gases as changing the car one drives or doing away with the clothes dryer, scientific experts say.

Russia's Oil Industry, Breaking With Opec, Is Surging

By Andrew E. Kramer

THE NEW YORK TIMES

MOSCOW

Improbably, Russia's oil sector has emerged as one of this country's few growth industries.

While the 12 nations of OPEC have limped through the last year, painfully cutting production as the global economy slumped, Russian oil companies have had an extraordinary run. Profits and share prices at companies like Lukoil and Rosneft are up and the Russian budget deficit is coming down, in part because of oil revenue.

The divergent fortunes of Russia and the Organization of the Petroleum Exporting Countries suggest that the Kremlin will never revive the proposal it floated a year ago, then withdrew, that Russia and OPEC coordinate production limits. Russia has benefited handsomely from opening the taps full throttle.

Already the world's largest oil-producing nation, Russia has become the biggest exporter too, surpassing Saudi Arabia as the Saudis reduced production to stay within OPEC's limits.

"OPEC made a concerted effort to stem its exports," Alex Fak, an oil analyst at Troika investment bank in Moscow, said. "The result of that action was higher oil prices. So Russia was encouraged to produce more and sell more. Which is what it did."

To Curb Risk, Fed to Track Banks' Top Paychecks

By Stephen Labaton

THE NEW YORK TIMES

WASHINGTON

The Federal Reserve announced Thursday that it would crack down on pay packages that encouraged bankers to take excessive risks, but officials acknowledged that the plan might not reduce the biggest paychecks on Wall Street.

While unlikely by itself to end the practice of lavish compensation, the Fed's plan is one of the most far-reaching responses yet to last year's financial crisis. It will subject executives, traders, deal makers and other employees of the biggest banks to regulatory scrutiny of their compensation and represent another increase in government intervention in the marketplace.

The announcement was timed to coincide with the decision by the Obama administration this week to cut the pay of many high earners at the seven companies that received the most taxpayer help. Both decisions were announced amid growing public outrage over large pay packages at many of those companies.

"Compensation practices at

some banking organizations have led to misaligned incentives and excessive risk-taking, contributing to bank losses and financial instability," said Ben S. Bernanke, the Fed chairman. "The Federal Reserve is working to ensure that compensation packages appropriately tie rewards to longer-term performance and do not create undue risk for the firm or the financial system."

In one sense, the announcements by the Fed and the Treasury are a sharp departure from the hands-off approach to regulation that had dominated this city for decades. The abiding principle of both announcements was the same — companies that make a lot of money over a sustained period will be allowed to reward their executives handsomely, while those who put the economy, the financial system, shareholders and the taxpayer at risk may not.

The principles proposed by the Fed for the nation's 28 largest banking companies are less strict than those from some European leaders and some members of Congress. They do not impose caps on pay or prohibit multimillion-dollar pack-

ages. One senior official predicted that they would do nothing to curtail the lucrative pay at firms like Goldman Sachs and Morgan Stanley, both regulated by the Fed since becoming bank holding companies last year during the financial crisis.

Instead of pay limits, the Fed rules are intended to discourage pay packages that may encourage risky practices. The government wants to encourage pay packages that reward executives for long-term performance.

Officials acknowledged that it could be months before they would be able to tell whether the Fed's changes would have the intended effect. Bank examiners will have to be trained on the ties between compensation and risk management. Moreover, compensation consultants have been adept at finding ways to get around pay restrictions.

Even as the Fed was unveiling its plan, Kenneth R. Feinberg, the Treasury official in charge of overseeing pay practices at the companies that received the biggest government bailouts, was providing details about his decision to curb the compensation of the 25 top employees of each of those firms.

Pressed, Sen. Reid Says Health Bill May Have Public Option

By Robert Pear and David M. Herszenhorn

THE NEW YORK TIMES

WASHINGTON

Under immense pressure from the liberal wing of his caucus, the Senate majority leader, Harry Reid, has told colleagues that he may include a government-run health insurance plan in a health care bill he will soon take to the Senate floor, Democratic senators said Thursday.

Reid's latest thinking seemed to reflect a calculated gamble that the 60 members of his caucus could be persuaded to vote for the public plan, if it included some mechanism for states to opt out.

His decision was shaped, in part, by opinion polls showing public support for a government insurance plan, which would compete with private insurers. Speaker Nancy

Pelosi said again on Thursday that the House would definitely include a public option in its version of the legislation.

At a meeting at the White House on Thursday, Reid told President Barack Obama of his inclination to add the public option to the bill. Obama asked questions, but did not express a preference at the meeting, which was called on short notice by the White House.

Just six weeks ago the public option appeared to be dying, under fierce attack by the insurance industry. A clear majority of Democratic senators favor a government-run plan. But public statements by other senators indicate that the proposal does not have the 60 votes ordinarily needed to secure Senate approval for hotly contested legislation.

As word of Reid's plans spread

Thursday, senators from both parties said they had come together in an informal group to resist creation of a uniform nationwide public insurance program. Leaders of the group, including Sens. Ben Nelson, D-Neb., and Olympia J. Snowe, R-Maine, said they wanted to be sure the bill was not rushed to the floor.

One of the centrists, Sen. Mary L. Landrieu, D-La., said: "I am pressing to get a government-run, taxpayer-supported public option out of the bill. I want to rely on a reformed private marketplace."

The public plan is the most divisive issue in the debate, even though the Congressional Budget Office says it would likely attract no more than 12 million people. Critics say the public plan would have unfair advantages and could eventually dominate the market, leaving hardly any role for private insurers.

WEATHER

Another Rainy Weekend

By Allison A. Wing

STAFF METEOROLOGIST

The past week has been a terrific example of how variable fall weather can be. While last weekend was cold and rainy (and even a bit snowy on Sunday!), the last few days have been warm and sunny. This variability continues over the next couple of days. Today should be significantly cooler than the past couple days. The temperature will only make it to around 50°F, and brisk winds from the north mean it will feel even cooler. The next low pressure system will move into our area late tonight.

As the warm front associated with the low pressure system passes on Saturday, temperatures should be back into the 60s°F. A southerly low level jet will increase the transport of moisture into Southern New England resulting in showers throughout the day on Saturday, which could be heavy at times. Then, the cold front will sweep across the region on Saturday night bringing more rain, with an isolated thunderstorm possible. We should receive 1–2" of precipitation from this storm. Expect a dry day with seasonable temperatures on Sunday. If you have any outdoor plans this weekend, Sunday seems like it will have more cooperative weather than Saturday.

Extended Forecast

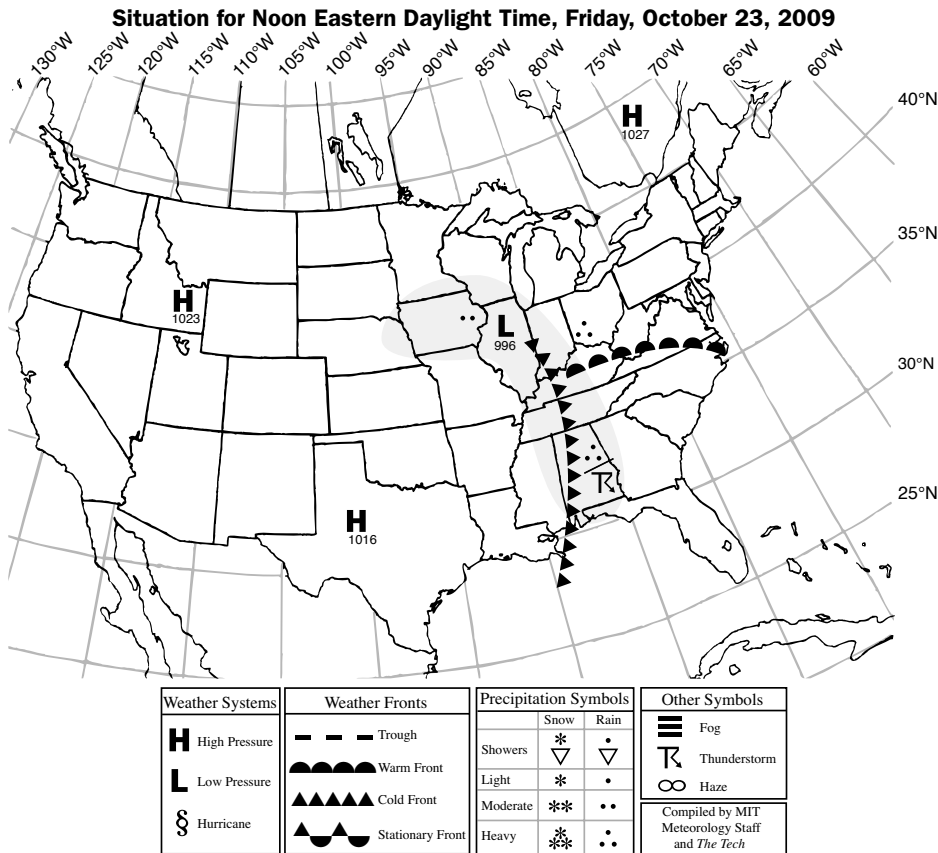
Today: Partly sunny and breezy. High 51°F (11°C). North wind 10 to 15 mph becoming east, gusting to 25 mph.

Tonight: Cloudy with a chance of showers, mainly after midnight. Low 45°F (7°C). East wind between 8 and 12 mph.

Tomorrow: Cloudy with rain showers and wind through out the day; rain could be heavy at times. High 63°F (17°C). South wind between 10 and 15 mph, gusting to 30 mph. Low 58°F (14°C).

Sunday: Partly sunny. High 64°F (18°C). West-Southwest wind between 8 and 12 mph.

Monday: Partly sunny. High 58°F (14°C). North-Northwest wind 5–10 mph.



Senate Votes to Expand Hate-Crime Protection

By David Stout
THE NEW YORK TIMES

WASHINGTON

The Senate voted Thursday to extend new federal protections to people who are victims of violent crime because of their gender or sexual orientation, bringing the measure close to reality after years of fierce debate.

The 68-29 vote sends the legislation to President Barack Obama, who has said he supports it.

The measure, attached to an essential military-spending bill, broadens the definition of federal hate crimes to include those committed because of a victim's gender or gender identity, or sexual orientation. It gives victims the same federal safeguards already

afforded to people who are victims of violent crimes because of their race, color, religion or national origin.

"Hate crimes instill fear in those who have no connection to the victim other than a shared characteristic such as race or sexual orientation," said Sen. Patrick J. Leahy, D-Vt., who sponsored the hate-crime amendment to the military bill and called its passage a worthy tribute to the late Sen. Edward M. Kennedy of Massachusetts, who first introduced hate-crime legislation in the Senate more than a decade ago.

Opponents argued to no avail that the new measure was unnecessary in view of existing laws and might interfere with local law enforcement agencies. Ten Republicans voted for

the hate-crime measure.

The Senate action came two weeks after the House approved the measure, 281-146, and would give the federal government the authority to prosecute violent, antigay crimes when local authorities failed to.

The measure would also allocate \$5 million a year to the Justice Department to assist local communities in investigating hate crimes, and it would allow the agency to assist in investigations and prosecutions if local agencies requested help.

Federal protections for people who are victims of violent crime because of their sexual orientation have been sought for more than a decade, at least since the 1998 murder of Matthew Shepard, a gay Wyoming college student.

Behind War Between White House and Fox

By Jim Rutenberg
THE NEW YORK TIMES

WASHINGTON

Late last month, the senior White House adviser David Axelrod and Roger Ailes, chairman and chief executive of Fox News, met in an empty Midtown Manhattan steakhouse before it opened for the day, neutral ground secured for a secret tete-a-tete.

Ailes, who had reached out to Axelrod to address rising tensions between the network and the White House, told him that Fox's reporters were fair, if tough, and should be considered separate from the Fox commentators' skewering the president nightly, according to people briefed on the meeting. Axelrod said it was

the view of the White House that Fox News had blurred the line between news and anti-Obama advocacy.

By the following weekend, officials at the White House had decided that if anything, it was time to take the relationship to an even more confrontational level. The spur: Executives at other news organizations, including The New York Times, had publicly said that their newsrooms had not been fast enough in following stories Fox News had been heavily covering through the summer and fall, to the White House's chagrin — namely, the focus on past statements and affiliations of the White House adviser Van Jones that ultimately led to his resignation and questions surrounding the

community activist group Acorn.

At the same time, Fox News had continued a stream of reports that rankled White House officials and liberal groups that monitor its programming for bias.

Those reports included a critical segment on the schools safety official Kevin Jennings, with the on-screen headline "School Czar's Past May Be Too Radical"; urgent news coverage of a video showing schoolchildren "singing the praises, quite literally, of the president," which the Fox News contributor Tucker Carlson later called "pure Khmer Rouge stuff"; and the daily anti-Obama salvos from Glenn Beck and Sean Hannity.

A Lone Cleric Is Loudly Defying Iran's Leaders

By Michael Slackman
THE NEW YORK TIMES

RIYADH, SAUDI ARABIA

A short midlevel cleric, with a neat white beard and a clergyman's calm bearing, Mehdi Karroubi has watched from his home in Tehran in recent months as his aides have been arrested, his offices raided, his newspaper shut down. He himself has been threatened with arrest and, indirectly, the death penalty.

His response: Bring it on.

Once a second-tier opposition figure operating in the shadow of Mir Hossein Mousavi, his fellow challenger in Iran's discredited presidential election last June, Karroubi has emerged in recent months as the last and most defiant opponent of the country's leadership.

The authorities have dismissed as fabrications his accusations of official corruption, voting fraud and the torture and rape of detained protesters. A former confidant of Ayatollah Ruhollah Khomeini and a longtime conservative politician, he has lately been accused by the government of fomenting unrest and aiding Iran's foreign enemies.

Four months after mass protests erupted in response to the dubious victory claims of President Mahmoud Ahmadinejad, the opposition's efforts have largely stalled in the face of unrelenting government pressure, arrests, long detentions, harsh sentences, censorship and a strategic refusal to compromise..

Pakistani Brigadier Assassinated in Capital

By Jane Perlez
and Salman Masood
THE NEW YORK TIMES

ISLAMABAD, PAKISTAN

Two assailants on a motorbike fired on a Pakistani army jeep in heavy rush-hour traffic Thursday morning, killing a brigadier and his driver, a security official said.

The assassination of the brigadier, Moinudin Ahmed, was believed to be the first targeted attack on a senior military officer in Islamabad, the Pakistani capital, and also suggested a new tactic in the continuing war between the government and Islamist militants. Until now, the military has been able to move mostly freely through the capital.

The assailants fired with automatic weapons at the jeep, which was not bulletproof, and then disappeared into heavy traffic, according to witnesses. The attack took place around 9:30 a.m. in the G-11 neighborhood of the capital.

The attack appeared to be a direct reprisal against the army's current offensive against militants in the rugged tribal region of South Waziristan.

Another soldier was injured in the attack, according to a military spokesman. The brigadier returned to Islamabad a few days ago from Sudan, where he was leading the Pakistani contingent attached to the United Nations peacekeeping force, according to an Islamabad police official. He was on his way to Rawalpindi when he was attacked.



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Questions Remain About Obama's Certificates

It seems everyone is excited for President Obama's visit to MIT today. Or should I call him Barack Hussein Obama, *de facto* President?

My question is: has anyone seen Obama's original, IS&T-issued Personal Certificates? I can show you my own certificates: they expire July 31, 2010. Yet Barack Obama has consistently refused to address this issue, claiming that "the media" has seen him log in to an Athena workstation during the campaign, and that he hasn't bothered with certificates since installing a new version of Firefox.

Why are the media, and Pres. Hockfield, ignoring this question?!? MIT's Charter is very clear: only naturally-registered persons are given superuser privileges at the Institute. And yet Barack Obama will waltz in here Friday and practi-

cally run "su root" from the command line.

I think the question this raises is, whose Kerberos password is he really using?

Nicholas Musolino G

The Silence of 30 Million Missing Chinese Women

President Obama's visit to MIT is a great honor, especially after his Nobel Peace Prize award. However, there are many mixed feelings about his visit when one considers the word "peace."

Obama recently decided to resume funding to the UNFPA (the United Nations Population Fund), which provides funds for abortions outside of the U.S., including those in China to support its One-Child policy. The UNFPA funding had been stopped during the Bush and Reagan administrations.

The impact of such pro-abortion policies

became known in April 2009, after the British Journal of Medicine published the results of recent research on the sex ratio in China. Its findings are disturbing. For example, we learn that today in China, 120 boys are born for every 100 girls — a considerably higher sex ratio than in other countries (around 105). We also learn that this sex ratio skyrockets to 200 in some provinces. And most of all, we learn that today 30 million Chinese girls are missing as a result of selective abortions.

This "leaning" of the population pyramid can only be found in wars and mass murder. The silence of these missing Chinese women is tangible evidence that abortion is not about a fetus, but is a war on the unborn.

We understand that when President Obama restored funding to the UNFPA this research was not yet published. But it would be interesting if he could tell the MIT community if he is willing to reconsider his decision now that he is aware of these findings.

Matt Shireman G

MIT Pro-Life

How Academic Fads Harm Research

Clean Energy Is the New Nanotech Is the New Biotech Is the New...

Gary Shu

Before Facebook, there was Friendster.

You do remember Friendster, don't you? The social networking site connected people before Facebook escaped the Ivy League and gave users the first opportunities to broadcast Too Much Information before you could tweet it. Friendster was a beta version of Web 2.0; yet I can't remember the last time anyone used it. As indispensable as Facebook and Twitter seem now, they may all go the way of other dot-com flame outs like Altavista, Kosmo.com and Napster, residing in that part of our memories we only use to answer trivia questions.

Unfortunately, academic research seems to follow a similar trajectory to that of high-tech start-ups and pop culture. Remember biotechnology? Gene therapy promised to hold the potential to cure all manner of disease, including cancer. The promise of miraculous technologies like gene therapy that would stitch up our medical problems motivated Congress to double the level of funding going to the National Institutes of Health during the late-1990s to the mid-2000s in the hopes of spurring a "biotech revolution". Yet, in the midst of a nationwide debate over healthcare reform, no one seems to be currently touting the fruits of NIH.

Remember nanotechnology? The ability to manipulate matter at the molecular and atomic level was supposed to lead to unthinkable materials with incredible properties, to nanomachines able to reconstruct nearly any object imaginable. Nanotechnology was the next big field, and funds flowed copiously toward them earlier this decade. Yet the most notable applications of nanotechnology remain limited to products like auto-tinting eyeglasses and antibacterial plastics, a far cry from the fantastic nano-assembly lines that floated in front of our eyes.

The political, cultural, and economic zeitgeist says the research flavor of the moment is all things clean energy. As a professor put it, just do the Harvard Business School short sell — find out what industry HBS grads are flocking to and short it under the assumption it will crash in five years. That industry is currently clean energy. More conveniently for professors, energy research comes in all forms: coding software for smart grids, developing electronics for smart homes, machining mechanical bits for electric vehicles, and chemical engineering for more efficient turbines.

As part of the Department of Energy's new "Energy Frontier Research Centers" (EFRCs), MIT was awarded over \$36 million for the establishment of two research centers at the Institute, one in excitonics and the other in solid-state physics. What these topics specifically have to do with energy is not obvious. MIT's official press release states that Professor Marc Baldo's Center for Excitonics "aims to understand the transport of charge carriers in synthetic disordered systems, which hold promise as new materials for converting solar energy to electricity and for electrical energy storage." Similarly, Professor Gang Chen's newly created center is "to create novel solid-state materials for the conversion of sunlight and heat into electricity."

Not ten years ago these centers would have been hailed as the latest push into the then-novel and exciting field of nanotechnology. The lay

taxpayer may not understand the technical syntax of "synthetic disordered systems" or "novel solid-state materials" nor their connections to other fields, but professors and their graduate students certainly do. Before these research projects were supported by the sexy and amply-funded nanotechnology hype, MIT's new research centers would have instead played footsie with fields like microelectromechanical systems (MEMS) or solid state devices in order to cozy up to some hot funding source.

The professional grant writers called "professors" sell these sometimes tenuous connections as much as they can. Some years ago, only after a professor concluded his PowerPoint presentation — containing a slide with no less

As a research professor, if you didn't play the game, the funding was going elsewhere and you lost out.

than nine instances of the "nano-" prefix — did he secretly confide to me that he was really not doing any different kind of research but merely packaging his experiments to the tastes of the day. Everyone did it. As a research professor, if you didn't play the game, the funding was going elsewhere and you lost out.

The money behind MIT's EFRCs is going to the same kinds of research that would have been performed regardless. On the margins, there might be some changes in priorities and slight deviations of project goals but on the whole, who doubts that these principal investigators would not have received some sort of funding from the National Science Foundation or the Institute's favorite government patron, the Department of Defense? And is the Recovery Act's stimulus money really going to research that stimulates the economy? The money may come from different pots, the project managers different people, and the proposal summaries coded with different buzzwords, but as a matter of survival, the research stays the same.

The new federal investment in energy research is being mistakenly disbursed as well. Massive funds from both the stimulus and a higher public awareness of energy issues have pushed money into energy research. But these monies often serve existing parochial purposes (i.e. politicians' constituents) rather than far-sighted national objectives. Instead of funding the energy research incubator "Baby Bells" — the small clusters of innovation laboratories Secretary of Energy Chu trumpeted during his spring MIT visit — legislators have divvied up the money among mediocre and disparate research institutions in their own districts. Less effective and more forgettable research will be the result.

The first victims of

such funding whiplash are our long-term research interests, something our current institutions are unable to coherently achieve. NIH's massive increase in funding biotechnology was ill-met with a slow ramping up of building of laboratory space by universities and training by departments. Everyone competed with one another at precisely the same time and too many long-term projects were mismanaged. Universities are now stuck with empty lab space and fewer accepted grant proposals.

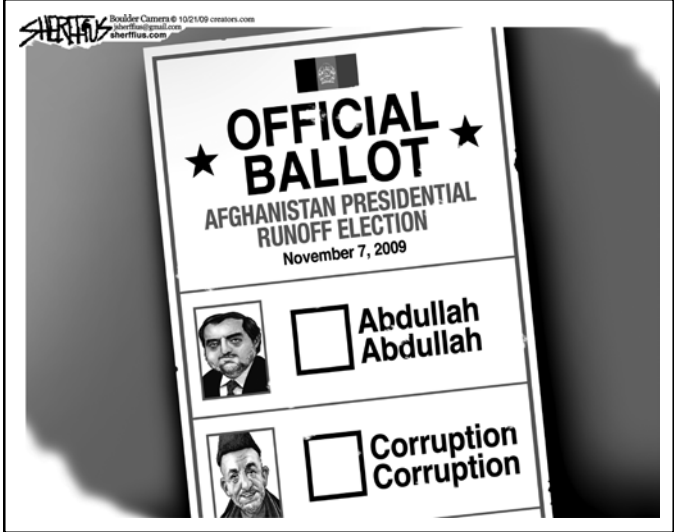
The other victim of funding whiplash is the public. Politicians react to urgent science and technology issues by sending funds into research areas which sometimes, like NIH and biotechnology, lack the capacity to respond. Seasoned professors adept in the funding game adapt to the new bubbles. Research continues apace under a new banner. Other research more directly relevant may get funding but five or ten years down the line political priorities will necessitate an about-face, as in nanotechnology and energy. Either way, the taxpayer wonders about the promises made about funding [insert field here], if the taxpayer even remembers at all.

Absent overwhelming motivations like war, I'm frankly skeptical that any American government would be able to sufficiently insulate research from politics. But if we are to succeed in reaching our long-term goals — landing a man on Mars, curing cancer, creating a new energy infrastructure — we need to halt the frantic scramble to the new New Thing. The drain on resources, in venture capital, taxpayer money, 24-hour news airtime, and just plain mindshare, is unproductive. Not only will government need to be more consistent in their science research funding but professors should be more honest and transparent about the potential benefits of their efforts, to proposal committees and the public at large.

Only if President Obama can credibly direct our research efforts over an extended and sustained period, rather than the haphazard and inconsistent support that politics creates, will we produce the innovative infrastructure our society needs for vital technologies like clean energy.

Otherwise we will continue to use our technological research capacity like we used Friendster.

Gary Shu is a graduate student in the Technology and Policy Program and the Department of Urban Studies and Planning.



Truth or Dare?

Moving Towards a Clean Energy Lifestyle

Nina Sinatra

Why don’t Americans care about energy? It’s a simple question, accompanied by an unmistakable twinge of gaucherie. As an engineer-in-training, I spend my time calculating structurally admissible conditions in class, building prototypes in lab, and analyzing scalability of renewable energy sources as a UROP. Somewhere in the midst of p-sets, exams, tooling, and activities, I think we all tend to forget that we represent only a small fraction of American students, albeit a well-informed one.

Now what about the general populace? Taking a leaf out of Jay Leno’s book, it would be relatively simple to stroll down Beacon Street asking random pedestrians questions about energy. The answers, I’d gather, would be relatively uniform. It is a sad fact of our culture that while teenagers and adults alike grovel at the altar of Perez Hilton and US Weekly, most Americans display little concern for energy efficiency.

Wake up, people. Melting down Taylor Swift’s VMA isn’t going to solve global warming. We are dangling on the cusp of one the most difficult obstacles our civilization has faced since incipency. So why not slide the circumstances to our favor? Clearly the American public will not take a significant interest in energy given the current sense of urgency (and no, watching/talking about/sleeping through “An Inconvenient Truth” doesn’t quite count). Let’s cut our losses and move on. The energy

crisis is not an easily solved problem, nor one that will rectify itself automatically. To make a genuine impact, Americans must collectively dismount the La-Z-Boy, toss the TV remote, and take notice.

Easier said than done? Possibly, but the key to this situation is to change the national mindset. Historically, we are a nation of innovators: men and women who loathed the status

Historically, we are a nation of innovators: men and women who loathed the status quo enough to do (key word: do) something unprecedented about it.

quo enough to do (key word: *do*) something unprecedented about it. We once chucked a load of tea into Boston Harbor, why not do it again... with fossil fuel?

There must be a way to again unite Americans, this time under the mantle of energy efficiency. The only way to bridge the didactic divide between enlightened researchers, tiresomely bureaucratic policy-makers, and working-class families is to provide a legitimate incentive. Not a letter-writing campaign, nor a cheesy public service announcement. Why not a significant tax rebate for families who own

hybrid cars? Fitting newly constructed developments with solar panels and geothermal pumps and allowing apartment residents to make use of renewable power? Charging an energy tax to corporations and individuals who fail to comply with emission standards?

A better approach would be somewhat more subtle. Monetary incentives are attractive, but it is most imperative that Americans are presented with viable energy alternatives in an everyday setting. The only way that we can discharge our dependency on fossil fuels is if equally practicable alternatives actually exist. Thanks to engineers and researchers, it should eventually be feasible for America to implement scalable solutions in both domestic and industrial settings.

What we need now is for the government to prioritize energy research. Fit all government and academic buildings with solar panels and geothermal pumps, so that the next generation of students, engineers, and policy-makers will be accustomed to a lifestyle of clean energy. Offer additional grants to labs working to refine and distill biofuels, develop powerful offshore wind turbines, or construct more efficient solar power systems. Pay attention to details and simple solutions. And accept no substitutes for clean energy.

Next time you use your laptop, take a look at some satellite pictures of Earth. Can you think of a reason why the United States glows from space? I dare you to do something about it.

Nina Sinatra is a member of the Class of 2012

The Changing Face of Economics

New Laureates Reflect an Interest in Nontraditional Research

Maggie Liu

Last week, the Nobel Prize in economics went to Elinor Ostrom and Oliver Williamson ’55, both non-theoretical economists. This spurred significant interest in the blogosphere due to the unconventionality of the recipients’ backgrounds. It is therefore worthwhile to consider their research in the context of the current economic landscape — this may help explain why Ostrom and Oliver in particular were chosen. Furthermore, because Ostrom is actually not an economist, but a political scientist, the judges have encouraged suggestions to change how we view the economics category.

This brings us to the questions: What exactly should economics be thought of in this current day and age, and how will the revolution in bank infrastructure affect how we view economics?

There are so many reasons why Ostrom’s award has been the subject of such buzz. Besides being the first woman to receive the Economics prize, Ostrom was also a political scien-

tist by practice. In fact, while Ostrom’s research was related to the finance industry (economic governance), the purpose of her research was to address a much broader set of questions. Ostrom had studied the management of common resources with case studies including Alaska’s fisheries and her theories on this kind of management have been transposed onto other matters — the most relevant economic ones include solutions to managing common property by making users bear external costs of their utilization with government regulations. Ostrom’s research is comparatively more empirical and less geared towards explaining the finance markets. However, her research may have longtime bearings on public policies regarding climate change.

Williamson is the less controversial winner. An undergraduate Sloan graduate, Williamson’s research focused on the differences between companies’ and markets’ reactions to conflicts. While he had long been a contender for the Nobel Prize, receiving the Prize now is timely because his work shows how corporations expand and vertically integrate. Williamson’s studies focus on determining the boundaries of firms and the rationale behind firms’ actions. Turning his head to corporate companies, he notes that “hierarchical organizations sometimes dominate markets because they provide a cheaper way to resolve conflicts.” However, Williamson argues, firm-based hierarchy could be dealt with if a contract with another party in the industry could be resolved or trading partners could be found to alleviate the burden of conflicts.

So what exactly is economics as the Nobel

committee sees it? While one perspective of MIT economics is that of a math-driven study, more and more people refer to economics as an inter-disciplinary topic. It seems that the Nobel Prize committee is suggesting that economics can be viewed more qualitatively than it had been before. It expands the horizons of the definition of “economic science.” Ostrom declared herself to be a “political economist” — we begin to wonder where the line between economics and politics blurs.

The fact that the awards this year were presented to staunch non-theorists may also underscore the impact that the economic recession has had on a global scale. Both Ostrom’s and Williamson’s research tie back to economic governance, relationships and non-market institutions. Seeing that the whole economic system has been under scrutiny recently, it is rather appropriate that these economists are recognized for such pertinent research.

However, will future Nobel Prizes also begin to follow this trend of applicability rather than breakthrough theories? Or is this merely a byproduct of coincidental timing and a reflection of the gravity of the economic situation (and system) at hand? While both Williamson and Ostrom’s research implicate the government’s oversight, Williamson’s research can also be expanded to influence debates concerning health care and global warming. In dealing with the current financial situation, neither explicitly undermine the government’s position. The research of both economists, however, promoted government intervention and dealt heavily with system organization and structure.

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Nobel Prize Simply Not Worth the Fuss

Obama Is Not the First Questionable Recipient

Justin Cannon

President Obama didn’t deserve the Nobel Peace Prize. We get it. A big thanks to Erasmus K. zu Ermgassen for regurgitating once more the week-long pat-on-the-back the media has been giving itself. “Look at us,” they seem to be saying. “We’re controversial. We can say bad things about Obama.” Fox News is, of course, in the corner wondering what all the fuss is about, slightly jealous that others are stealing his gig.

“He didn’t deserve it.” It’s obvious. It’s easy. And, best of all, it kind of smells like controversy. Unfortunately, when Obama himself admits that he doesn’t deserve it, it takes all the fun out of it — like when your mom starts playing Guitar Hero.

As usual, the easiest observation is overplayed and over-repeated until you can rehearse it to your barber (or in your school newspaper) and feel like a cocktail intellectual. And, as usual, it masks what is perhaps the real truth of the matter, which is less dramatic but more, well, true. This year’s peace prize has been neither the dramatic fall-from-grace nor the shocking debauchery of the prestigious award everyone

This year’s peace prize has been neither the dramatic fall-from-grace nor the shocking debauchery of the prestigious award everyone is pantomiming.

is pantomiming. The Nobel Peace Prize has always been a joke.

Let’s take a look at the who’s who list of Nobel laureates. We have Henry Kissinger, former U.S. Secretary of State who played a central role in bombing Cambodia and overthrowing two Latin American regimes. There’s Yasser Arafat and Shimon Peres, who, despite Oslo, didn’t have many qualms killing each others’ civilian populations for decades.

And let’s not forget Theodore Roosevelt and Woodrow Wilson, who in the last week have been on a pedestal as examples of U.S. presidents who actually deserved the Nobel Prize. Wilson, a white supremacist, founded the rhetorical justification for America’s imperialism for the next century and never actually joined the League of Nations he helped create. And Roosevelt not only coined the phrase “Speak softly, and carry a big stick,” he acted on it by leading one of the most imperialistic administrations in U.S. history, getting his hands dirty in Puerto Rico, Cuba, the Phillipines, Panama, and China.

In fact, in all these cases, the Nobel Peace Prize hasn’t served to recognize anyone with any discernible commitment to peace — to the contrary, it was awarded to individuals who seemed to have found time to broker a politically convenient or necessary peace agreement during a lifetime of advocating violence as a quick and practical solution.

So, to argue whether or not Obama is worthy of the peace prize is missing the entire point. The prize has always been a politically-motivated hunk of metal. Who cares if Obama is worthy? The award itself is not worthy of its reputation.

To be fair, though, the prize has been awarded to plenty of people who have made great contributions and sacrifices to the cause of peace. Take Gandhi, certainly one of the most dedicated followers of pacifism in history. He promoted cooperation between Hindus and Muslims and renounced violence against India’s colonial invaders. Here is a man who chose to starve himself rather than calling his millions of followers to arms. Wait... what’s that? The Nobel Committee never awarded Ghandi the prize?

Damn.
Justin Cannon is a member of the Class of 2008.

UA Update

Senate met on Monday, October 19 to discuss three pieces of legislation. Senate passed 41 U.A.S. 2.2: Resolution to Continue Transparency and Representation throughout the Institute-wide Planning Process, which seeks to continue undergraduate involvement in the ongoing budget reduction process. On a larger scale, this is part of a push for an increase in undergraduate involvement in Institute decision-making processes.

The Bill to Authorize the Treasurer to Reallocate Money to Student Groups would allow the UA Treasurer to allocate unused funds from UA Executive Committee and operating accounts to the next term’s Finance Board allotment instead of the invested reserve. This piece of legislation was postponed so that voting on the bill would occur in light of further information regarding Senate finances, specifically the UA’s Invested Reserve.

Legislation to decrease the minimum period between Senate meetings from seven days to six days was introduced and will be brought up for voting at the next meeting.

The next Senate meeting will be on Monday, October 26 at 7:30 p.m.

The UA Committee on Sustainability has been conducting surveys about plastic bag recycling in dorms. The committee will be using the results of these surveys to pilot this program within dorms.

—Elizabeth A. Denys,
UA Secretary General

ARTS

OPERA REVIEW

Metropolitan's Production of Aida Refreshing

A Revival of an Old Favorite

By Joyce Kwan

STAFF WRITER

Aida

Metropolitan Opera, New York, NY
October 12, 2009

The audience at the Metropolitan Opera was surely as dramatic as the performers on stage. Despite booing conductor Daniele Gatti for what it considered a lackluster performance of Verdi's *Aida*, the audience seemed quite content with a repeated performance a little over a week later.

Apparently, following the opening night performance of the Met's revival of *Aida*, singers were greeted with ovations and cheers while Gatti, the conductor, had to stomach significant boos. The logic behind this is slightly baffling since the conductor, in no small way, is in charge of the singers. Nonetheless, after the performance I attended a little over a week later, the audience seemed generally pleased.

The performance was the revival of a 1988 production done by stage director Sonja Frisell that has proven to be reliable over the years. It envisions *Aida* at its most grand and traditional, depicting ancient Egypt as imposing and exotic, but doing so without overpowering the performers, as grand sets are wont to do (as those designed under Zeffirelli's direction). All the ingredients of grand opera were there: large sets, intricate costumes, and a dash of risk to enthrall the audience.

That risk came in the form of horses trotting across stage and performers as Egyptian soldiers standing, without any safety harnesses, on top of a wall that slowly lowered from the top of a stage to reveal a dazzling set.

Yet the production sought more than mere spectacle: It aimed to enhance the music. A particular instance that comes to mind occurred during the triumphant march, when captives were carted across stage amid victorious music to remind us of the ugliness of war. This mixture of extravagance and gravitas made the experience feel truly memorable.

The singers impressed the audience with the sheer beauty of their voices, but perhaps not

with their versatility. The tenor Johan Botha, in the lead male role of Radamès, stole the show in the first act with his opening aria, "Celeste Aida," in which he sung with out-of-this-world sounds, reverberating to every corner of the 3,800 person hall. But as the opera progressed and one grew accustomed to his voice, one wanted more from him, and he soon paled in dimensionality as he stood in contrast to the leading ladies.

Both the leading ladies, soprano Violeta Urmana as Aida and mezzo-soprano Dolores Zajick as Amneris, dominated in the beginning and flourished as the opera grew in emotional complexity. Urmana's Aida, through the masterful control of her round voice, impressively conveyed the psychological torment involved in staying true to one's kingdom while remaining hopelessly in love with the army general of an opposing state. Zajick, in the supporting role of Amneris, wrought a woman of nearly equal complexity through dramatic precision, one whose jealousy is buttressed by a tender and equally hopeless love.

Gatti's conducting fittingly remained on the subtler side, so as to not cheapen an opera that is essentially an exploration of the conflict between public duty and private passions. His style was marked by sensitivity and attentiveness to the natural tendencies of each singer. The audience certainly had no problems him this time since he received as much applause, if not more, as the singers.

The Met has been facing a fickle audience recently, starting with this year's season opener, a new production of Puccini's *Tosca*. Realized as stark and kinky, the production understandably drew boos and catcalls so adamant that the performers decided to receive the response from a side balcony.

But perhaps these are the markings of a new Met, one that general manager Peter Gelb is working hard to achieve. Pushing boundaries with new faces, rarely staged works, and radical productions of storied favorites, Gelb will undoubtedly turn away some longtime Metgoers. And the tradeoff? The changes make the Met something worth discussing.



MARTY SOHL/METROPOLITAN OPERA

Carlo Guelfi plays Amonasro, and Violeta Urmana plays the title role in Verdi's *Aida*.

THEATER REVIEW

Murder, Improv, and Pithy One-Liners

A Whodunit with Humor Close to Home

By Danielle Gorman

Shear Madness

Charles Playhouse, Boston, MA
October 20, 2009

The Charles Street Theater delivers with *Shear Madness*. The combination of a murder mystery, improv comedy, and audience interaction makes this a very unique production. The show's motley cast features a flamboyantly gay hair salon owner, an attractive and spunky female hairdresser, a

slimy salesman, an elderly blue-blooded woman, and two stereotypical Boston cops. The chemistry of the cast adds spice to the on-stage interactions; even the actors occasionally erupt into laughter at each other's ad lib.

Although the entrance to the theater leaves something to be desired, the actual stage and audience seating area set the perfect atmosphere for the show. The majority of the seating is at small, two-person tables that provide an intimate feel to the experience. It promotes communication among audience members —

who are often eager to discuss plot developments amongst themselves. The proximity of the seating to the stage allows audience members to feel as though they are in the action, which encourages them to contribute during the interactive portion of the show.

The first act opened with Tony Wickham, the salon owner, distractedly snipping away at a client's hair while gabbing to hairdresser Barbara DeMarco. Although entertaining, Tony tended to rely a bit too heavily on jokes about his attraction to men. Tony himself admitted this

when he says, "In the 90s, I was a stereotype — now I'm retro!" When not attempting to flirt with the men on stage and in the audience, Tony ranted about the landlady who lives upstairs (the former concert pianist Isabel Czerny, who often played her piano loudly).

The plot is set into motion when Barbara discovers the death of Mrs. Czerny. The remainder of the play is the "whodunit" portion, in which the cast questions each other and the audience about the identity of the culprit.

The cast threw out pithy one-liners left and right; the abundant references to pop culture and local Boston culture got the biggest laughs out of the audience. While giving a customer a shave, Tony commanded, "Give me a nice Rush Lim-

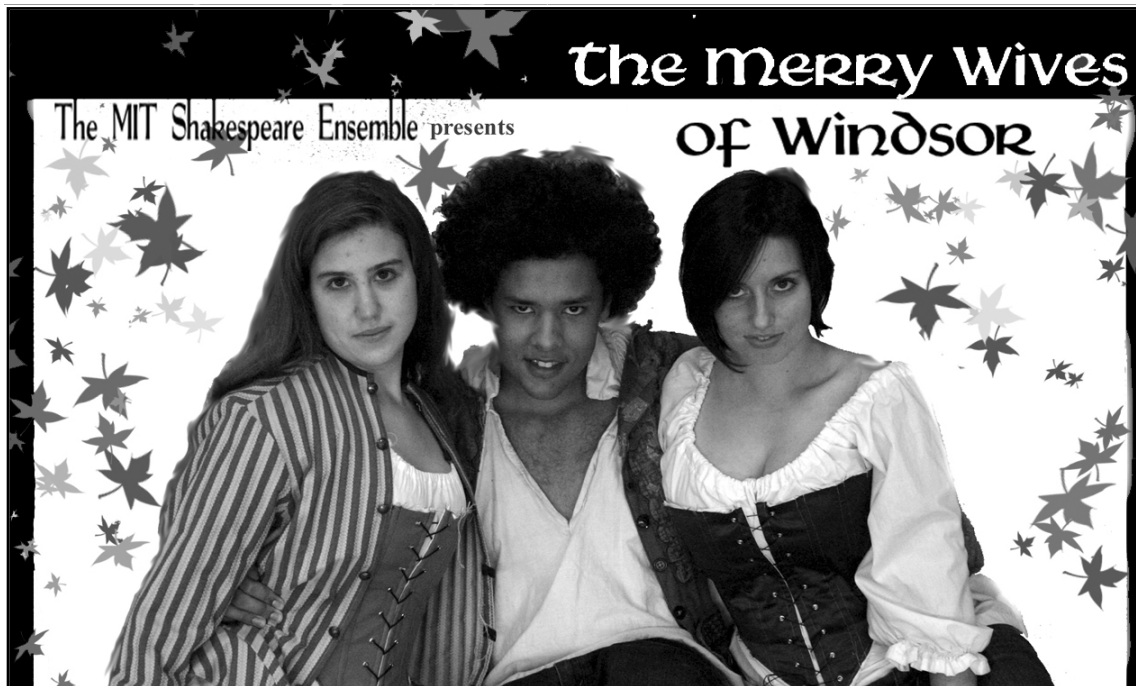
baugh!" and then explained, "That means turn to the far right." Even more important than the lines was their enthusiastic delivery; all of the actors played their parts to near-perfection.

The aristocratic Mrs. Schubert was the perfect blue-blooded old woman, with a few interesting twists. Of her husband giving her an enormous diamond engagement ring, she said, "Yes. But it comes with a curse... Mr. Schubert." Her slightest intonations and body movements managed to convey surprising and laugh-inducing information about her. She and Tony were the highlights of the show, most likely because they have been veterans of the production.

Although I enjoyed the show overall, I do have two significant reservations in my praise. The advertisements for the show led me to expect a lot more improvisation and audience interaction. The entire first act completely avoided audience involvement, and the latter half of the second act similarly deemphasized audience participation.

The murderer's confession at the end of the show also disappointed me with its awkward and humorless deliverance. For a show that promised laughs and a good time, *Shear Madness* misstepped by taking the final scene too seriously. My friend and I left the theater uncomfortable and, as she put it, "a little creeped out."

Still, the cast had wonderful dynamics amongst themselves and the audience; the majority of the play produced enough laughs that I would still recommend giving it a chance. Although tickets cost \$42 for the average playgoer, you can use your student ID to obtain a 50 percent discount on tickets purchased at the box office.



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CONCERT REVIEW

A Smorgasbord of MIT A Capella Groups

A Pair of Songs to Show Us What You’ve Got

By Emily Nardoni
STAFF WRITER
Greater Boston Invitational Sing
Kresge Auditorium, Cambridge, MA
October 10, 2009

Last weekend had a lot to offer to MIT students, as the wide variety of student groups on campus showcased their love of everything *but* math and science to

the visiting families. One of the weekend’s highlights was the Saturday night a cappella concert, dubbed the “Greater Boston Invitational Songfest.” The lineup included all nine campus a cappella groups, each performing two numbers of their choice.

First up were the Chorallaries, MIT’s oldest co-ed a cappella group, known for their impressive arrangements and an eclectic range of performances. Their opening number, “Zom-

bie” by the Cranberries, gripped the audience with its haunting harmonies, stunning vocals by soloist Minmin Yen ’11, and zombie-esque choreography. Their enthusiastic and beautifully composed second selection, “High” by the Lighthouse Family, got everyone clapping along.

Up next were the MIT Muses, displaying their signature girlish flare and sweetheart style as the campus’ only all women’s a cap-

ella group. A perky rendition of Elvis’ “Can’t Help Falling in Love” got the audience giggling in a good way, while their vocals really shone in “Fidelity” by Regina Spektr.

The pace changed with the MIT/Wellesley Toons’ funky rendition of Keri Hilson’s “Knock You Down.” The Toons’ contagious beats and unique choreography — including the formation of a human airplane veering to the rhythm of their music — wrought fervent applause. They kept it playful with The Orion Experience’s “Obsessed With You,” which again showcased their incredible vocals and super-cool style.

In contrast to the intensity of some of the other groups, the Asymptones’ lighthearted approach to music let their more low-key performance of Deep Blue Something’s “Breakfast at Tiffany’s” and “Finite Simple

group” speak for itself. Catchy harmonies and comic touches (like beginning their set with the Warner Brother’s theme song) effectively got the whole room smiling and nodding along.

The next three groups, the Cross Products, Techiya, and Syncopasian, each brought a little of something different to the table. The Cross Products’ inspiring songs of faith and hope had the unique flavor of MIT’s only co-ed Christian a cappella group — and a “wow” factor that listeners of all religious backgrounds could appreciate. MIT’s Jewish, Hebrew, and Israeli a cappella group, Techiya, impressed with a rap and Hebrew twist to “New Soul” by Yael Naim. The newest group on campus, Syncopasian, soulfully performed in a mix of Cantonese, Mandarin, Japanese, and English. They also performed some of the best beat boxing of the night.

Second to last, the all-male Logarithms knew how to work a crowd. Rushing onto the stage in a variety of crazy costumes — featuring Harry Potter, Zorro, and a talented soloist clad head to toe as Ernie from Sesame Street — the Logs’ explosive versions of “You Give Me Something” (James Morrison) and “Knock on Wood” elicited the loudest and longest applause of the night. Their awe-inducing harmonies and modern flare provided a great lead into the last performance of the night by Resonance. Resonance’s trendy “Crush” (by David Archuleta) and highly charged “Untouched” (the Veronicas) brought an energetic end to the hour and a half long concert, and left the audience begging for more.

There’s plenty more to come from the a cappella groups this year, so be sure to check out your favorite group’s performance schedule.



JENNIFER L. WONG—THE TECH

Ernest I. Park ’12, with the MIT Logarithms, sings “Knock on Wood” by Eddie Floyd at the Greater Boston Invitational Songfest on Saturday night.

CONCERT REVIEW

Say Hi: Raw Like Sushi

Second Opener Steals the Show

By Matt Fisher
Say Hi
TT The Bear’s Place
October 21, 2009

Say Hi (formerly Say Hi to Your Mom), the little-known second opener at TT’s, proved to be by far the most talented band of the evening, blowing both the opening act and the headlining band out of the water. Raw and loud without any sacrifice to their catchy, simple melodies, Say Hi’s show on Tuesday was a performance that changed the way one would listen to a band’s recorded work.

Opening for Say Hi, The Soft Drugs pursued outstandingly mediocre, minor-key, guitar-driven rock. Fronted by ex-Pedro the Lion member T. W. Walsh, The Soft Drugs presented an interesting arrangement where almost all of the singing was crooned by the drummer. However, the novelty of their setup, even tempered with an excellent lead guitarist, failed to ameliorate their stolid, easy-to-anticipate songs. The headlining act, David Bazan, while opening with a slow, shoe-gazing guitar anthem, fell short of their potential, and left me waiting for something to happen throughout their set.

Soaring over the low bar set by the opening

act, Say Hi’s three band members took the stage and went immediately to work making amends. With almost all of the studio recording done by frontman Eric Elbogen in his basement, predicting the band’s cast at any given concert is more guesswork than research. Tuesday’s performance saw him on guitar, accompanied by a bassist/back-up singer and a talented drummer.

Before hearing their set, the working title of this article in my head — a scary, confusing place at the best of times — was “Say Hi, or How I Came to Stop Fearing and Love Indie Pop.” Post concert, this title was blown: the first bars of their opening song “Hallie and Henry,” featured heavy, unfiltered rhythm guitar, a rash drum beat, and a harsh bass-guitar line that were completely unexpected from their recorded work. Mixed loud, they hashed out about ten songs, mostly off their two most recent LPs “The Wishes and The Glitch” and “Oohs and Aahs,” all dripping with reverb. The drummer, an enthusiastic dude resembling Dave Grohl ca. 1990, exhibited huge enthusiasm, and the songs were better off for his all out assault. (Imagine that: a Seattle-based band touring with a drummer that looks like Dave Grohl.)

Despite the louder, rawer musical style, Elbogen’s compelling melodies lost none of their beauty, and were actually improved by

their juxtaposition to the band’s live incarnation. Unlike many bands’ under the “indie pop” heading, Say Hi’s lyrics, even those in the traditional category regarding girls that didn’t call them back, are cogent and strong, mostly warning their listeners about the dangers of love: “if the devil was a girl/ and she wore a yellow tee/ she’d be the spitting image/ but that’s okay with me.”

Showing off an easy on-stage personality, Elbogen told several jokes in between songs, and entertained a brief Q&A session with members of the audience. At least twice prior to a song, he stopped and announced, “and this is a song about vampires.” While this might seem

a continuation of his comedic persona, in reality, almost every song off their album *Impeccable Blahs* (2006) is actually about the living dead, with titles like, “These Fangs,” “She Just Happens to Date the Prince of Darkness,” “Not as Goth as they Say We Are,” and “The Reigning Champ of the Teething Crowd.”

Good lyrics? Great

Sound? Beautiful Melodies? Vampires? Why don’t more people know about Say Hi? In this author’s opinion, Say Hi fell victim to the same terrifying trend that has been sweeping rock music since the turn of the millennium: overproduction. Producers no longer seem comfortable with a band’s true sound, and feel the need to smooth out the eddies and distortions that differentiate rock music from electrically produced pop. This yields two pieces of advice to would-be Say Hi fans: If you get a chance to see this band live, take it; if you are going to listen to their studio albums, crank that volume so loud that you could wake Dracula during daytime.



DHAVALADJODAH—THE TECH

Members of the University of Massachusetts Boston’s Selection Naturelle show off their moves during ASHASI 2009, MIT’s 10th annual African culture night.



ALICE LI—THE TECH

Audience members place Brian T. Basham ’12 (left, kneeling) and Ryan H. Foote ’11 (right) into impromptu poses during Roadkill Buffet’s “The She Sells Sea Shells by the Sea Show” last Saturday.

The House Of Bluegrass

The Yonder Mountain String Band (below) brought their Colorado spirit to the House of Blues on Friday, October 23. The group played to its largest crowd ever in Boston, mostly gaining a fan base through word of mouth. Mandolin player and lead vocalist Jeff Austin (left) and bassist Ben Kaufmann (right) formed the group in 1998 in Nederland, Colorado with Dave Johnston and Adam Aijala.

Photography by S. Balaji Mani



Guitar Knives Rock Out ' @ the Coffeehouse'

The Guitar Knives was the first to perform as part of the concert series "Live! @ The Coffeehouse" on Oct. 16. Other performances will take place on Oct. 30, Nov. 13, Nov. 20 and Dec. 4.

(clockwise from right)

Thomas M. Cervantes '11 of The Guitar Knives strums the bass.

Acoustic guitarist and songwriter JamesLevi "Levi" M. Schmidt '10 opened the show.

Kevin A. Rustagi '11 drums a beat



FENG WU—THE TECH



JESSICA LIN—THE TECH

SPORTS

The Head of the Charles: A Rower’s Perspective

By Melodie Kao
TEAM MEMBER

The Head of the Charles is the largest regatta in the world, comprising over 8,000 rowers and 1,700 boats. The 5km-long race course connects the MIT, BU, Riverside, Harvard, Cambridge Boat Club, and Northeastern boathouses.

On the cold, windy, and rainy final day of the Head of the Charles, rowers warm up inside.



MENG HENG TOUCH—THE TECH

Ryan Breneman ’10 rows for MIT’s heavyweight varsity crew on Oct. 17. The Engineers ranked 29th of 55 in the Club Fours race.



SAM RANGE—THE TECH

Members of MIT Crew approach the starting line at the Head of the Charles during the Women’s Lightweight Eight event. The Engineers placed 12th of 14 competitors.

it in!”

Twenty feet above the frigid water, held in midair by a worn tiled floor, eight bodies begin to blend into one, arms taut, heads steady, and the room begins to smell of a heady mix of human sweat, adrenaline, and the humming tension of utter concentration. In this room and on the twisting expanse of water below, intellectual power transforms into physical power, where singleminded intensity takes on the form of loose jaws and relaxed backs, gentle hands, and eyes boring into the river just beyond the boathouse windows.

As muscles bunch across shoulders and whirring fans rise to a cacophony of wheels, bearings, and wind, drops of sweat follow the contours of warm flesh. They run through eyebrows and eyelashes, and tears from the stinging salt mix with the sweat that drips onto the floor, tracing out a line that sings the motion of the rowers: pushhhh return, pushhhh return, whooshhhhh whooshhhhh. Each drop shimmers against the dull floor, arrested in space but dynamic through time, as it reflects shadows of the body above: motion contained within two feet of moisture.

“Big — Big,” a coach emphatically bellows. The water in the tank rushes by so swiftly that it shoots out of the breather holes and between the wooden slats on the ground. A swelling, tumbling, swirling deluge gushes over concrete banks and steel grates, and the river water splatters against the red of the uniforms. Coxswain, coach both inundate the rowers with last-minute advice, but the rowers are beyond words, so intent are they as individual motions merge and finally, eight bodies become the sweep of the water below.

As the championship 8+ women prepare to race, the chaotic traffic pattern of boats weav-



SAM RANGE—THE TECH

Members of the MIT lightweight men’s varsity crew launch from Pierce Boathouse Sunday before competing in the Head of the Charles.

ing in and out metamorphoses into the semblance of a line, and wind and rain give way to snow swirling around bodies, melting into the river, and muffling the whoooomp of the oars.

The race is a superposition of white snow, grey sky, murky water bubbling against the hull of the boat, and the brilliance of red-yellow trees illuminating the course. Each bridge is a brief respite from the snow, and the clicking of the oars magnifies and fills the space, like the crescendo of the ergs, before dispersing over the river again. At the end, as bodies slump and lungs gasp, steam rises out of these black silhouettes, dancing with the falling snow and the clouds of breath exhaled, and mixing with the passion, gut, and discipline that form the fabric of the Institute and the sport of rowing.



AARON SAMPSON—THE TECH

Timothy R. Jenks ’13 shoots prone in the 3 position smallbore rifle match against John Jay College of Criminal Justice. The Engineers defeated the Bloodhounds 4453 to 4199.



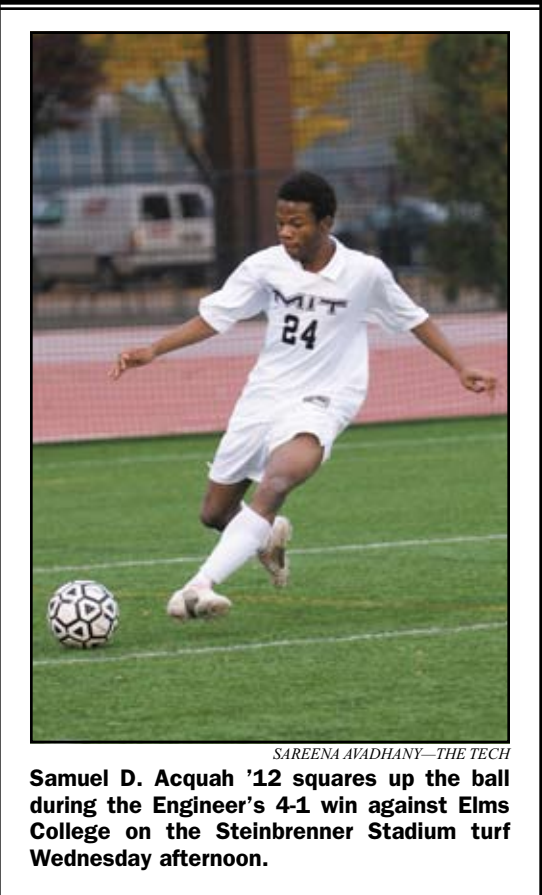
DAVID CHEN—THE TECH

Lorraine Ling G (left) executes at the MIT Tae Kwon Do tournament held this past Sunday at the Z-Center. The Engineers finished first overall.



ARTHUR PETRON—THE TECH

Forward Liz Theurer ’10 successfully bounces a kick away from two Wheaton pursuers during a home game on Tuesday. The Engineers ultimately fell to the Lyons 2-0 during the shutout.



SAREENA AVADHANY—THE TECH

Samuel D. Acquah ’12 squares up the ball during the Engineer’s 4-1 win against Elms College on the Steinbrenner Stadium turf Wednesday afternoon.

UPCOMING HOME EVENTS		
Friday, October 23, 2009	Rifle vs. Wentworth College, Mass. Maritime Academy	Field Hockey vs. Mount Holyoke College
	6 p.m., duPont Gymnasium	1 p.m., Jack Barry Field
Saturday, October 24, 2009	Rifle vs. Navy, Wentworth College, Mass. Maritime Academy	Men’s and Women’s Fencing — Alumni Meet
	9 a.m., duPont Gymnasium	1 p.m., duPont Gymnasium
Sunday, October 25, 2009	Sailing - Oberg Trophy	Men’s and Women’s Swimming and Diving - Alumni Meet
	9:30 a.m., Charles River	1 p.m., Z-Center Pool
	Women’s Tennis — NEWMAC Quarterfinals	
	11 a.m., duPont Courts	
	Football vs. Salve Regina University	
	12 p.m., Steinbrenner Stadium	
		Women’s Tennis — NEWMAC Semifinals
		9:30 a.m., duPont Courts
		Women’s Tennis — NEWMAC Finals
		1 p.m., duPont Courts

Lightweights Send Three Boats To the Head of the Charles

Men's Lightweight Crew raced in three events at the 45th running of the Head of the Charles last weekend. In the Club 8+ event on Saturday, the freshmen lightweight squad powered their way to 16th position out of the field of 46 in a time of 16:19.491. The squad was led by coxswain Henry G. Skupniwicz '13, followed from stroke to bow by Zachary C. Segal '13, James E. Byron '13, Samuel F. Simmons '13, Cameron S. McAlpine '13, John R. DiMino '13, Stephen A. Freiberg '13, Samuel T. Reineman '13, and Devin A. Cela '13.

In blustery, snowy conditions, the varsity contingent took to the water on Sunday first in the Lightweight Fours event where Tech finished in 10th place overall and sixth among collegiate crews with a time of 19:01.671. The boat was driven by coxswain Diana T. Wu '11, and rowed by stroke Michael K. Lo '12, Justus M. Kebschull '11, and Erick W. Fuentes '11. In the Lightweight Eight competition, MIT put together its first varsity lineup of the year with coxswain Emily C. Shao '11, stroke Richard A. Suarez '11, followed by Ryan A. Flynn '10, Nicholas B. Murlo '10, Aaron M. Blankstein '10, Daniel H. Fourie '12, Jacob Brubert '11, Jameson W. Nash '11, and Keith T. Loebner '11. The Cardinal and Gray raced in a time of 16:36.283 to capture 17th place.

Next up for MIT is the Princeton Three-Mile Chase in Princeton, N.J. on Sunday, October 25.

—Mindy Brauer, DAPER Staff

Sports Shorts

Women's Tennis Closes Regular Season with 2-7 Loss to Babson

Women's Tennis fell to Babson College on Tuesday, 7-2. With the loss, the Engineers wrap up their season with a 3-5 record (3-4 NEWMAC) and enter this weekend's Conference Tournament as the number six seed.

All three doubles matches were decided by just two games, with Babson taking two of the three for an early 2-1 lead. First doubles pair Anastasia Vishnevetsky '12 and Alexandria C. Hall '12 gave MIT its first point, winning 8-6.

Babson dominated in the singles matches, winning five of the six matches. Vishnevetsky again provided the lone victory, defeating her opponent 6-3, 7-6 (5).

The Engineers will host third-seeded Babson in a rematch of Tuesday in the first round of the NEWMAC Tournament. The match starts Saturday at 11 a.m. on the duPont Courts.

—David Zhu, Sports Editor

Volleyball Fights Off Babson, 3-0

The MIT women's volleyball defeated formidable New England Women's and Men's Athletic Conference (NEWMAC) foe Babson College, 25-14, 26-24, 25-20, on Tuesday night. With the win, the Engineers improved to 22-5 on the year and 7-0 in conference action while the Beavers dipped to 12-10 overall and 4-3 in the NEWMAC.

MIT established a 10-5 lead in the opening frame, and

mounted a 14-4 run to take control of the game. Babson capitalized on three straight errors by the Engineers to extend the frame, but a strike from Jennifer Li '11 secured the first set victory.

Babson inched out to a 4-1 edge and maintained a small cushion for most of the second stanza. MIT slowly chipped away at the deficit as a block by Cecily L. Joujon-Roche '12 evened the game at 13. The Engineers recorded the next five points for their first lead of the set. Babson stayed within striking distance, registering four consecutive points to tie the score at 21. The Engineers wrapped up the frame on a strike from Alexandra T. May '10 and a block by Joujon-Roche and Li.

Babson opened the third set with seven unanswered points and went on to hold a 17-13 advantage. MIT's senior class responded with six straight points to capture the lead. Barden A. Cleeland '10 ignited the spurt with a pair of kills and then collaborated with May on a block that evened the frame at 17. Catherine Melnikow '10's solid serving throughout the rally yielded all three of her aces. Each side traded points as Babson stayed alive until Li recorded her third set point of the night.

May posted a double-double on 13 kills and 13 digs as Cleeland notched 10 kills and three blocks. Joujon-Roche registered nine kills and five blocks while Li racked up five kills and five blocks. In addition to her timely trio of aces, Melnikow added seven digs. Alyssa L. Rothman '13 tallied 38 assists and three aces as Katie K. Spielbauer '13 and Anna D. Dikina '11 rounded out the defense with eight and six digs, respectively.

Next up for MIT will be the Hall of Fame Tournament held Oct. 23-24.

—Mindy Brauer, DAPER Staff



YULEI SUN

Nikola B. Otasevic '12 advances the ball down the pool on Oct. 17 during the men's water polo game versus Fordham University. MIT lost 7-6.

SCOREBOARD

Field Hockey	
Tuesday, October 20, 2009	
Wheaton College	0
MIT (12-4)	1

Men's Soccer	
Wednesday, October 21, 2009	
Elms College	
MIT (7-6)	

Women's Soccer	
Tuesday, October 20, 2009	
Wheaton College	2
MIT (8-5-1)	0

Women's Tennis	
Tuesday, October 20, 2009	
Babson College	7
MIT (3-5)	2

Women's Volleyball	
Tuesday, October 20, 2009	
Babson College	0
MIT (22-5)	3

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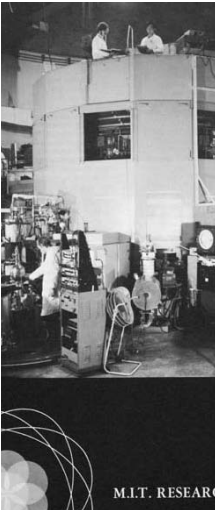
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exhibit



Power Supply: Energy Resources in the MIT Libraries



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libraries.mit.edu

Steal My Comic

by Michael Ciuffo



STEALMYCOMIC.COM

Sudoku

Solution, page 13

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

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

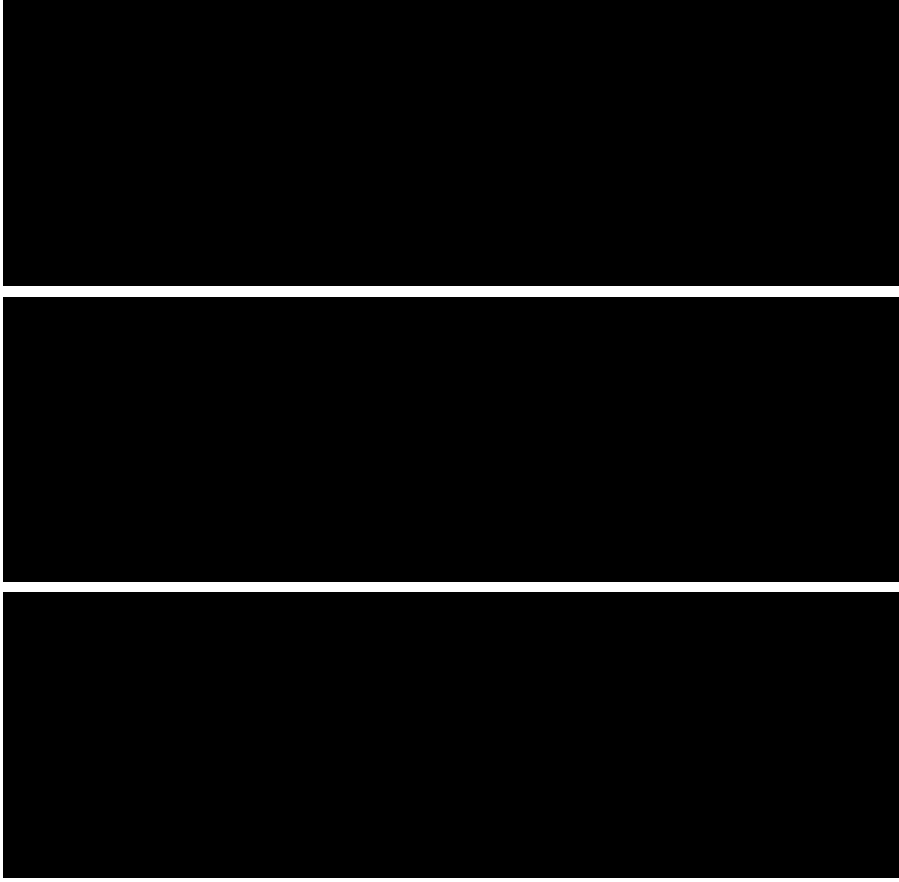
Help Desk

by Michael Benitez



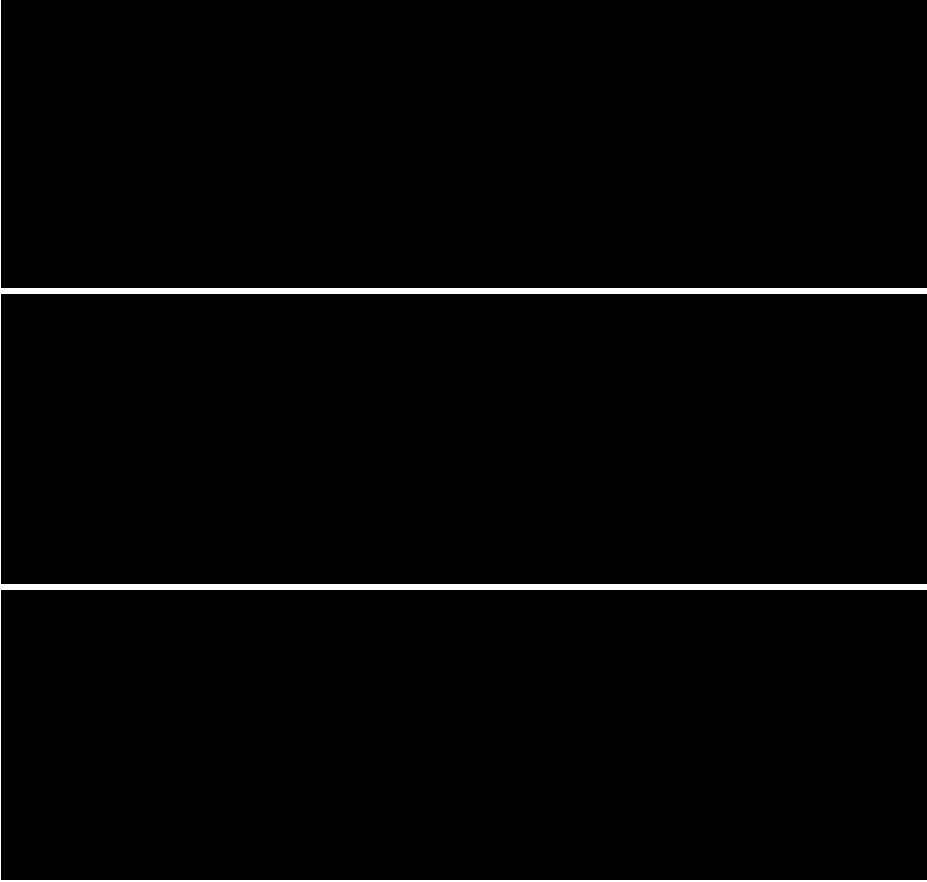
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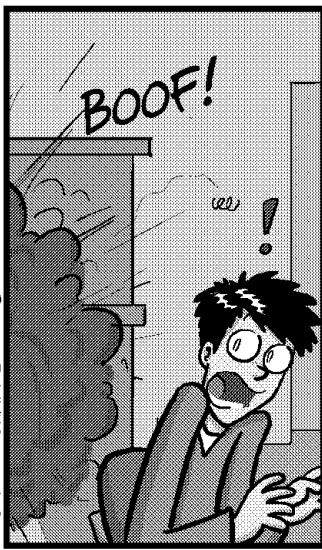
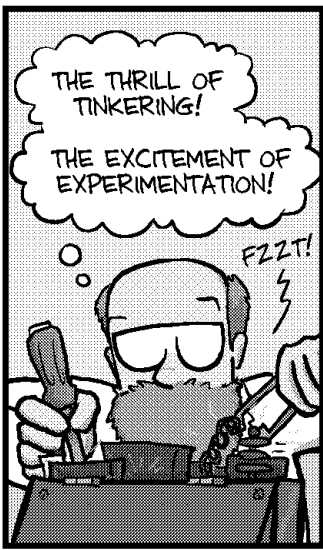
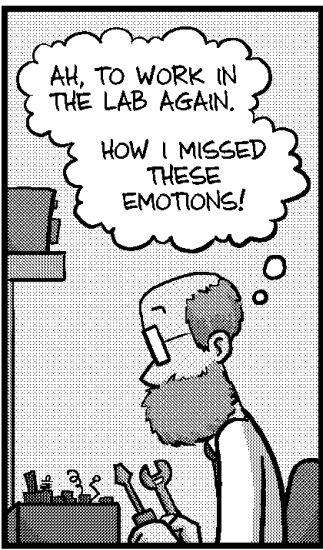
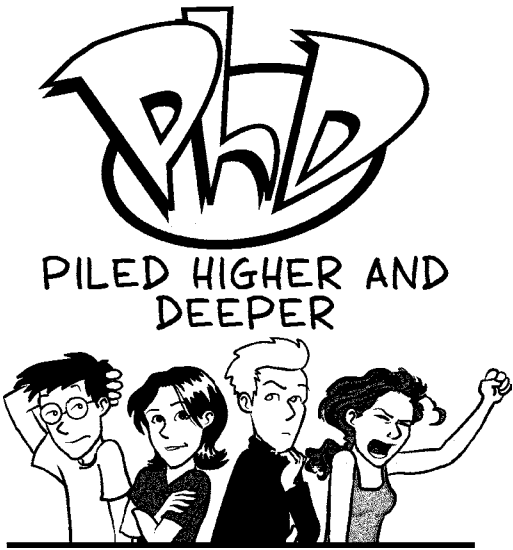
BY GARRY TRUDEAU



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by Scott Adams





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Crossword Puzzle

Solution, page 13

ACROSS

- 1 Angle
- 6 Like disco dancers
- 10 "Wow"
- 13 Explorer __ de León
- 14 Structural sci.
- 15 Nightclub in a Manilow song
- 16 Atlanta university
- 17 Health nut?
- 19 Prefix with dermal
- 20 PC support person
- 21 Village paper?
- 22 "Make him an offer he can't refuse," e.g.?
- 25 Toy in a holster
- 26 Eightfold
- 27 Winter mo.
- 28 Arg. neighbor
- 29 IM provider
- 30 Arles assent
- 31 Get ready, briefly
- 32 Where hogs go hog-wild?
- 36 Satirist Mort
- 37 Blood

classification letters

- 38 "__ who?"
- 39 Longoria of "Desperate Housewives"
- 40 Source of 20s, for short
- 41 Spokane university
- 45 Comfort for a griever
- 47 DVDs?
- 48 Concert venue
- 49 Takes to court
- 50 Tolkien tree creature
- 51 Cocktails at an exotic resort club?
- 53 Bugs chaser
- 55 Greek love god
- 56 Lighten up?
- 57 Stiller's comedy partner
- 58 Form 1040 ID
- 59 Lhasa __
- 60 Slangy turndown, and a hint to how
- 17-, 22-, 32-, 47-

and 51-Across are formed

DOWN

- 1 Swimwear brand
- 2 California city near Vandenberg Air Force Base
- 3 Consecrate using oil
- 4 Big name in 40-Acrosses
- 5 Mystery writer Josephine
- 6 Reproductive cell
- 7 In the cooler
- 8 Deep wound
- 9 Polo Grounds hero
- 10 "I don't get it"
- 11 Gastronomes
- 12 Gone from the plate
- 15 Photoshop command
- 18 Author Hunter
- 20 Turnpike
- 23 Small game bird

- 24 Resting atop
- 25 Two-wheeled artillery wagons
- 27 "A __ of Wine, a Loaf of Bread ..."
- 30 Notable 1969 bride
- 31 Food in a flat box
- 32 11-Down, e.g.
- 33 Battered repeatedly, in slang
- 34 ThinkPad maker
- 35 Camp shelter
- 36 Bun seeds
- 40 Rent-__
- 41 Attends
- 42 Tarzan, e.g.
- 43 Biological divisions
- 44 Down a sinful path
- 46 Additions
- 47 Zaps in a microwave
- 49 Salon sound
- 52 Pocatello's state: Abbr.
- 53 Brit. record label
- 54 Latin law

1	2	3	4	5		6	7	8	9		10	11	12
13						14				15			
16						17				18			
19					20					21			
22			23	24					25				
26								27			28		
			29				30				31		
	32	33				34				35			
36					37				38				
39				40				41			42	43	44
45			46				47						
48						49					50		
51						52				53	54		
55						56				57			
58						59				60			

Japanese Association of MIT presents
Moon-Gazing Party

月見 - Tsukimi -

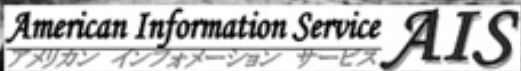
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Students Energetically Await President Obama’s Visit, Speech

By Robert McQueen
ASSOCIATE NEWS EDITOR

The news of President Barack Obama’s arrival on campus has sparked excitement throughout the MIT community, but it has also prompted protests.

Jared S. Silvia G is one of the lucky students who received a ticket for Obama’s address. His thesis work investigates the reduction of carbon dioxide to carbon monoxide. According to Silvia, one of his supervisors nominated him for a ticket.

Peter Lu ’11 also received a ticket. During the last two summers, Lu did energy-related work for Biodiesel@MIT and the MIT Electric Vehicle Team. He said that he is a big fan of Obama and hopes to shake his hand if given the chance.

“I was surprised to be picked,” Lu said. He is happy that he was picked despite the fact that he is Canadian, he joked.

Director Ernest J. Moniz of MIT Energy Initiative said that some

students and faculty involved in the MITEI have been given tickets to see Obama’s speech in Kresge. Moniz also said that he, too, will be attending the talk.

Protests Expected

During the speech, an estimated 80 protesters will convene on Kilian Court to rally for climate action, said Benjamin Scandella G. Scandella and Eric B. Mackres G started organizing the event two weeks ago and that it is only a coincidence that it is happening at the same time Obama is visiting MIT. Scandella said the rally will continue just as scheduled.

Participants will bring laptops and form themselves into a “< 350” shape, representing the amount of carbon dioxide in parts per million required for the Earth to stabilize the climate.

The rally is only one protest among many that will be happening all over the world. On Oct. 24, about

4,500 rallies in over 170 countries will be held in recognition of the International Day of Climate Action. The main purpose of the event is to convince world leaders of climate change before they meet at the UN Climate Change Conference in Copenhagen, Denmark later this year.

Another student, John “Sweet Tea” Dorminy ’13, stood outside the steps of Lobby 7 yesterday wearing a large protest sign. Dorminy said that he and a dozen other students will gather Friday morning when Obama arrives. They will protest against administration policies on healthcare and nuclear energy. Dorminy said that he believes healthcare should be a freedom and choice and nuclear energy should be better utilized.

In an e-mail solicitation, Dorminy asked for students to join him on this morning. “He’s my president ... but we’re a democracy and thus I’m going to make it known where I disagree when I have the chance.”

MIT Plans to Proactively Court Other Countries for Research Partnerships

Global MIT, from Page 1

Canizares said, “MIT tries to make sure they pay for themselves, but there is always overhead and legal costs.”

Frequently, the management of international activities places burdens on MIT’s administration, because administrative costs are higher for international activities.

Benefits to MIT

In 2007–2008, SMA generated about \$4 million in revenue for MIT. In fact, “international collaborations with foreign governments” was listed as one means of revenue enhancement the Institute Planning Task Force. Potential revenue was estimated in the range of tens of millions of dollars.

Canizares said that it is highly unlikely that MIT will adopt that particular strategy. He believes, “We should be carefully gaining international engagements, not doing it solely for profit. It would be a case of having one’s cake and eating it, too.” The ideal collaboration would be one where the research interests of the partner match those of MIT and which requires no financial outlay.

Potential Partners

For developing countries, pursuing an alliance with MIT could be cost-prohibitive (especially with price tags around \$20 million as with SMA.) Canizares confirmed that MIT’s emphasis on minimal costs does not completely preclude partnerships with those who cannot

pay. MIT would have “different motives” for establishing partnerships with those groups, so the financial outlay would not prove a deterrent. In these cases, MIT would also attempt to secure a donor or foundation funding.

According to the accreditation self-study, overtures from other nations have thus far triggered most of MIT’s international partnerships. But with a heightened awareness of the need for collaboration, MIT plans to become more proactive in seeking out partners.

A Select Few Will See Obama Speech; Cable Will Carry It Real-time

Obama & Protests, from Page 1

himself are determined to get climate change legislation done. With growing support in the Senate and a fierce ally in the White House, I look forward to moving this process forward and ensuring that the world sees the United States as the leader on climate action in Copenhagen come December.”

Kerry will not be attending the event due to a prior commitment.

Deans Allocate Tickets

About 100 of the tickets were selected through the deans of MIT’s five schools.

Marc A. Kastner, Dean of the School of Science, said that he was going to “try to get a diverse group of students, obviously those whose work involves energy.” Kastner, whose school represents 20 percent of MIT’s student population, had only 10 tickets to allocate to students and another 10 to faculty and staff.

Kastner said he would not take a ticket for himself, but would watch it on TV so someone else could at-

tend. “I think we should all enjoy this event,” he said.

Most of the deans have solicited recommendations of who to send from their department heads.

Obama’s visit to MIT has been hastily scheduled. MIT learned of Obama’s plans over the weekend, and has been scrambling since. The plans became widely known on Tuesday.

Second MIT/Energy speech

In March, Obama and MIT President Susan J. Hockfield appeared together at a White House event, “Investing in Our Clean Energy Future.”

Air Force One is scheduled to touch down at 11:30 a.m. at Logan Airport, and Obama will speak at MIT at noon. Afterwards, Obama will attend a fundraiser event for Massachusetts Governor Deval L. Patrick, and then Air Force One departs for New York at 3:40 p.m. The President will then attend a fundraising dinner for Senator Christopher J. Dodd (D-Conn.) in Stamford, Conn. before returning to Washington D.C. tonight.

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5 students got Obama tickets courtesy of *The Tech*.

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Solution to Sudoku

from page 11

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

Solution to Crossword

from page 12

A	V	N	X	I		O	S	J	A		N	S	S			
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MIT Weighs Several
Options for Increasing
Undergrad Enrollment

More Undergrads? from Page 1

cially the math and science GIRs to physically accept an increase in students proves to be problematic.

When MIT accepts a freshman, that student can choose to major in any department. MIT can be selective in the transfer and 3+2 students it admits, Lerman says. By choosing to admit such students into departments with unused capacity, MIT can more efficiently utilize its existing resources.

Dean for Undergraduate Education Daniel E. Hastings '78 said such

an approach could “admit students in targeted ways, in areas where they do not go through the GIRs, skipping bottlenecks, and into areas where there is actual capacity.

Hastings said that “on average, the amount to educate a [undergraduate] student here exceeds the tuition by some factor between 1.8–2.3,” but if care is taken in adding students the number of students can be increased without increasing that cost.

Lerman Favors 3+2 Program

In the proposed 3+2 program, a student could attend three years of their undergraduate career at a liberal arts school, and then move to MIT for two years, earning either two bachelors degrees (one from each institution) or a bachelors (from the “home” institution) and a masters degree (from MIT).

According to Lerman, there are significant issues with the 3+2 bachelors program.

Most notably, families may not be willing to pay for five years of tuition in this economy, and there is also the question of whether these students are getting the full undergraduate experience to earn an MIT bachelor degree. Lerman mentions that, although there is such a program in place between Wellesley College and MIT, the program is not currently in use.

Nonetheless, Lerman says, “currently all options are being talked about by the Task Force,” but described the 3+2 program masters program as his personal “favorite.”

Class Size Issues Nothing New

Accommodating these added students is also an concerning issue. Paul E. Gray '54, Professor of Electrical Engineering and MIT President Emeritus, also faced budget cuts during his presidency (1980–1990), and opted to forgo adding more undergraduates for fear of exacerbating the housing situation.

We should not increase class size if it entails “doubles becoming triples and triples becoming quads,” Gray said.

According to Lerman, current housing options include “empty beds within the FSILG system” or “waiting for W1 to be finished.”

The former could be problematic since some fraternities generate revenue by housing boarders, Lerman said. Also, 3+2 masters students could be treated as graduate students and thus housed outside the undergraduate housing system.

Gray said that; without access to another dormitory, a renovated Ash-down house, or more independent living groups; accommodating an increased class size would be difficult, to say the least.

MIT’s Mission Matters

Despite its limitations, Hastings said the most pressing argument to increase undergraduate student body size is “to educate more scientists and engineers for America.”

Lerman agrees: “If there was a way to create more people educated at MIT it would be good for the country.”

Professor W. Eric L. Grimson PhD '80, co-chair of the Academic Education team of the Task Force, said, “a careful model of the impact of each suggestion needs to be developed and examined” through further study before MIT can say for sure that it will see a flutter of new freshman on campus.

The task force’s report is expected on Oct. 30.

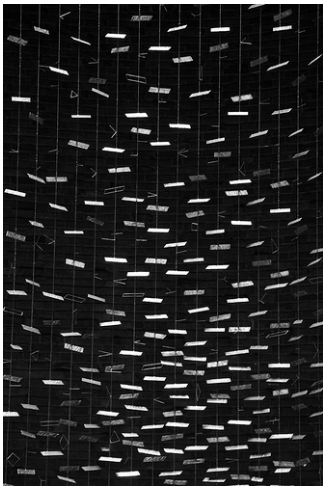
According to Lerman, changes could be made for the incoming class in fall 2011 “if a solution for housing arises.”

As of now, there is no fixed plan in place.

Ana Lyons and John A. Hawkinson contributed reporting to this article.

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MIT Questions Size of the Grad Student Population

Fewer Grads? from Page 1

One of the biggest concerns voiced by MIT community members at forums was the idea of “right-sizing” the MIT graduate student body. At the forums and reported in *The Tech*, there was discussion that such drastic measures as reducing 1,000 graduate students could result from “right-sizing” efforts.

Administrators Deny 1,000 Cut

In a recent interview, Dean for Undergraduate Education Daniel E. Hastings ’78, clarified that cutting 1,000 graduate students was a misconception, saying there was “no number implied” in the Task Force’s suggestion. Hastings is a co-chair of the Task Force’s Academic Education team.

Hastings explained the Task Force’s motivations: historically MIT had an equal number of undergraduates and “sometime around 1980, the

Institute came to be majority grad from majority undergrad,” where now the student population stand roughly at 6,000 graduate students and 4,000 undergraduates — a shift done while maintaining an “approximately constant faculty,” Hastings said.

Hastings said the biggest growth in the graduate student body was likely due to the large increase in doctoral students in the School of Engineering, and that a number of departments experienced “basically, unparalleled growth” where “the correlation with research is very high.”

W. Eric L. Grimson PhD ’80, who co-chairs the Academic Education team with Hastings, clarified that “We aren’t explicitly saying decrease the size [of the graduate student body] ... What we’re saying is in the last thirty years, MIT has gone from being roughly equal size [between graduate students and undergraduates] to majority graduate students, raising the question of ‘Is

this the right thing for MIT?’” Grimson is also head of the Department of Electrical Engineering and Computer Science.

Grimson said that the idea to “right-size” the graduate student body, if pursued, would foremost require further research and data collection, and that the Institute would likely create a small group to construct a model of the net benefit of the average graduate student in order to better understand the student’s impact on space, infrastructure, and other resources, such as faculty work load. Grimson also said that graduate student growth is currently unregulated beyond the scope of individual departments, and there is no centralized planning on the number of graduate students admitted.

GSC Responds, Concerned

Chan, the GSC President, gave the graduate students’ perspective on the “right-sizing” idea, saying, “Graduate students are very data driven,” and “before we start talking about right-sizing, a lot of data needs to be collected.”

Chan said the biggest GSC concern is that the cost of the “average graduate student” might be overly generalized during later research assessments — the time to complete a degree can vary greatly not only between departments, but even across lab groups.

Also, Chan worried that some of the less-tractable sources of revenue, such as the intellectual property generated by graduate students’ work and research grants brought in, might also be underestimated during “right-sizing” evaluations.

GSC Concern on TA Cost

Separate from the “right-sizing,” Chan said that the GSC also had “very strong opinions” on the Task Force idea for reducing TA costs as well as concern over ideas to implement new ways for students to obtain

masters degrees, either through a “3+2” program or online.

Both Task Force Academic Education co-chairs, Grimson and Hastings, spoke on these issues during interviews, and said that, like in the case of “right-sizing” the graduate student body, any future changes in TA pay or the implementation of transfer-student or online-based master’s degree programs would require extensive research before any serious changes would be considered.

Grimson said that the Task Force idea of matching appointment and pay to actual TA effort was a reflection of fractional TA appointments which may exist, where not all TA appointments require the formal full 20 hours a week.

“The main part [of this idea] is to not treat all TA appointments to be full, but fractional,” such as in the case of TA appointments requiring only 10 hours a week of preparation and teaching time, Grimson said.

Likewise, Grimson says the report’s idea to “consider providing every doctoral student with at least one semester of teaching experience for course credit in lieu of pay” stems from the observation that “a number of departments already have a degree requirement for teaching” decoupled from pay and “a student may TA to get specific credit for [the teaching requirement].”

The idea of offering TA appointments for credit instead of pay “is a way to keep the overall pool of TAs as close to constant as we can with cutting costs,” Grimson said.

Chan, however, says that the ideas for “TA Cost Abatement” found in the preliminary report are discussed vaguely, and if they could ultimately result in decreasing the amount or degrading the quality of TA appointments, it “would both affect graduate students as well and undergraduates” because “it’s a situation where you are also be reducing the learning experience of undergrads.”

On the idea to provide doctoral students with at least one semester of teaching in lieu pay, Chan said that “it’s sort of a disguised sense of creating forced labor” for the graduate students. Moreover, Chan said that “MIT is a research institute, and TA appointments are a way [for graduate students] to get financial support while they do their research — which is their main task as a graduate student.”

Online Master’s Degree Unlikely

The idea mentioned in the community forums for “e-learning” opportunities would likely involve some combination of OCW and distance learning, Grimson said, and it would probably be aimed at people who want a professional master’s degree not intending to later pursue doctoral degrees in academic subjects.

Grimson said that several years ago, “MIT looked hard at this [idea of distance learning], and decided not to seriously pursue it,” but that the Institute may reevaluate the option in this financial crisis.

Grimson said, however, one concern with these alternative master’s programs is that “we don’t want to the diminish quality of a degree by making it easier to get one.” Likewise, in relation to all suggestions by his working group in the Task Force Report, Grimson said “The education group felt it was their responsibility to think of everything they could. This is not to say that everything we listed should be done.”

Chan expressed similar concern about alterative options of obtaining masters degrees, saying “people are worried about the dilution of the reputation of a grad degree at MIT, and how this would effect getting into a master’s program.”

“[How might] this pool of people compete with current students for resources, even if it doesn’t compete for admissions” is an important question to ask, Chan said.

Some MIT Employees Might Be Exempt from Proposed Pension Cuts

Pension Cuts, from Page 1

ment benefits than they do in salary the year before they retire.

Employees can choose between a “defined benefit” and a “defined contribution” plan. Retirees under the current defined benefit plan get an annual check for 1.65 percent (1/60th) of the total amount they made at MIT.

Under the current defined contribution plan, MIT matches employees’ contributions to a separate retirement account (such as a 401(k)) for up to five percent of their paycheck. Their retirement earnings then depend entirely on that account.

Among the proposed cuts, one would reduce the defined benefit so that it only pays 1.65 percent of the total amount employees make over their first 30 years at MIT, rather than their entire time. Under a second proposal, employees contributing five percent of their paycheck to a 401(k) would receive only a four percent matching contribution from MIT.

The Proposals

The proposed changes would not affect people who have already retired.

As proposed, the package is “more attractive to younger employees and employees who work for MIT for less than 10 years,” said Professor Thomas A. Kochan, co-director of the Institute for Work and Employment Research. Kochan agreed with the Task Force’s suggestion that current retirees be grandfathered.

Kochan, who is chair of MIT’s faculty, is also one of the five faculty

members on the Human Resources and Benefits Committee of the Task Force.

For some employees, the proposal’s timing is apt: The Institute’s contract with service workers’ union SEIU Local 615 is up for renewal in the spring. Employees have growing concerns about pension plans and retirement, said Wayne Langley, the union representative for the Boston area.

Many MIT employees who live on a fixed income don’t get the opportunity to contribute to their 401(k) because of the lack of disposable income, Langley said. Instead, they rely heavily on Social Security and the Institute’s defined benefit plan.

Langley said the union was disappointed at not being consulted as part of the Task Force process. “There is a lot of talk about transparency,” said Langley, “but we were not included in the process. If [the union] can give our input, eventually [MIT] can find something that benefits both the university and the people.”

“In retrospect, it would have been good to communicate with the union earlier in the process,” Kochan said. “However, we are working with the union representatives now; we are still in the idea stage.”

Many SEIU members came to the Sept. 21 community forum held by the Task Force. Kochan called the forum — which sought suggestions from faculty, staff, and students — a kind of community engagement unique to MIT.

“We are setting a model for how to change in a university environment,” he said. “But that means we have to deliver.”

Proposed MIT Pension Plan Changes

Retirement Package	Current Package	Task Force Package
Defined Benefit	1.65 percent × Accumulated Employee Earnings	1.65 percent × Accumulated Employee Earnings in first 30 years
Defined Contribution	Match entire employee contribution up to 5 percent	Match entire employee contribution up to 3 percent, and half of the next 2 percent

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Buffalo Chicken mozzarella and buffalo chicken with a side of blue cheese	8		14
BBQ Chicken grilled chicken with caramelized onions & bbq sauce	8		14
Grilled Chicken Pesto mozzarella, cheddar, parmesan & fresh tomatoes	8		14
Spicy Sausage sauteed mushrooms & caramelized onions	8		14
Vegetarian roasted red peppers, mushrooms, broccoli & artichoke hearts	8		14
Prosciutto, Pear & Gorgonzola three cheese & poached pear	8		14
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2. When he was vice-president, Al Gore said of climate: **"The minimum that is scientifically necessary far exceeds the maximum that is politically feasible."** Since that still seems true, **what's your plan of attack for really educating Americans about the dangers that global warming poses?**
3. Your administration has talked about the need to limit temperature increases to two degrees celsius and CO₂ concentrations to 450 ppm. Given that 1 degree, and 390 ppm, has been enough to **melt the Arctic, destroy the great pine forests of the west, and spread mosquito-borne disease, don't we need more aggressive targets?**

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You can join us at Concord Bridge at 2, or at 3 at Christopher Columbus Park near the Aquarium T stop, where we'll be holding a Boston Underwater Festival. Search for more events happening in Boston at 350.org/map.

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—Desmond Tutu, USA Today, Oct. 22 2009

