



OMARI STEPHENS—THE TECH

The moon passed completely into the Earth's shadow this past Wednesday night in the last total lunar eclipse until Dec. 2010. Here, the moon re-emerges after being completely eclipsed from 10:01 to 10:51 p.m. See <http://sunearth.gsfc.nasa.gov/eclipse/> for more information on lunar and solar eclipses.

Late-Night Appearance Brings Prominence To 8.02 Instructor Fisher

By Ramya Sankar
STAFF REPORTER

"It's like a drug," said Physics Professor Peter H. Fisher, referring to the 14 minutes of fame he got in a recent appearance on NBC's Late Show with Conan O'Brien.

Most of the time, Fisher researches dark matter. But for brief few days at the beginning of February, he found himself contemplating a more mundane problem: how to make O'Brien's wedding ring spin on his desk for a long, long time.

Fisher appeared on O'Brien's show on Feb. 8 as a guest to help O'Brien improve his ring's spin time. Because of the Writer's Guild strike, the problem had occupied parts of O'Brien's show for days.

Contacted by supervising producer Frank Smiley to help Conan break his 41-second record, Fisher approached the challenge in the problem domain he knows best: physics. Fisher theorized that either

air drag or friction must slow down a spinning ring, and so he sent an e-mail to his Electricity and Magnetism (8.02) students in the early morning hours of Feb. 7, requesting their suggestions.

Within an hour, Fisher got several dozen suggestions, ranging from replacing the air around the ring with helium to using an air table. With these suggestions and with the results of several home trials in hand, Fisher headed to Rockefeller Center in New York City for the taping of the show at 5:30 p.m. on Friday, Feb. 8.

During the rehearsal, O'Brien, a Brookline native, talked with Fisher about the Boston area. After discussing various possible spin methods, they settled on using Vaseline and Teflon. Some spins with Vaseline lasted more than 80 seconds during the rehearsal. (He set a 51-second

Fisher, Page 11

P/D/F Option Proposed For Graduate Students At Feb. Faculty Meeting

By Shreyes Seshasai
STAFF REPORTER

Professor of Biology Stephen P. Bell presented a motion at Wednesday afternoon's faculty meeting that would allow graduate students to take subjects on a Pass/D/Fail basis, similar to the option currently available to junior and senior undergraduates. The motion will be discussed and voted upon at the March 19 faculty meeting.

If the proposal is approved, graduate students would be allowed to take one subject per term on a P/D/F basis. The subject's units would not count towards the total number needed to fulfill degree requirements, but the units would count against any unit restriction a student faces, such as those imposed by teaching assistant and research positions.

As the proposal stands, indi-

vidual instructors may prevent students from using the P/D/F option in their subjects, and departments may also limit the use of the option.

The motivation for the proposal comes from a growing desire of graduate students to take subjects outside of their primary field of research, Bell said. Currently, graduate students can elect either to receive full grades or listener status. But some students hesitate to take subjects that might hurt their grade point average, especially when they only want to get exposure to a different field, Bell said. And subjects taken with listener status do not show up on transcripts and leave no lasting record that a student took the subject.

Professor Charles H. Stewart III

Grades, Page 14

In Short

¶ The cancellation deadline for the MIT Student Extended Insurance Plan is next Thursday, Feb. 28. Those wishing to waive the plan can visit <http://web.mit.edu/medical/p-waiver.html>.

¶ The spring final exam schedule is now available. See the schedule online at <http://web.mit.edu/registrar/www/schedules/exams.html>.

¶ Add date is Friday, Mar. 7: Remember to designate a sophomore exploratory subject! See more online at <http://web.mit.edu/academic-guide/sec8.html>.

¶ Laptop security tagging is offered today in Lobby 10, from 9 a.m. to 11:30 a.m. For \$10 cash, the MIT Police will affix a bar-coded plate to your laptop.

MIT Drafts Response To Senate Inquiry On Endowment, Tuition

By Natasha Plotkin
ASSOCIATE NEWS EDITOR

MIT is compiling data to respond to the Senate Finance Committee's request for information about the school's endowment, financial aid, and tuition rates.

The committee sent this request to MIT and 135 other universities in the country with endowments over \$500 million on Jan. 24, in light of increasing concerns regarding hikes in tuition and unprecedented endowment growth.

The request indicates that the Senate plans to more closely monitor university spending policies. Iowa Senator Charles Grassley (R), ranking member of the committee, described the purpose of the request in a Finance Committee press release: "We're giving well-funded colleges a chance to describe what they're doing to help students." "More information will help Congress make informed decisions about a potential pay-out requirement and allow universities to show what they can accomplish on their own initiative," he said.

MIT Vice President and General Counsel R. Gregory Morgan, who was unavailable for comment, is coordinating the Institute's effort to provide a response within 30 days, as the committee requested.

The MIT administration has expressed concern at the possibility of increased government monitoring or control over tuition rates. The Senate press release mentions that college tuition is rising faster than inflation, and that college endowments are exempt from a requirement that private foundations pay out five percent of their assets

each year.

President Susan Hockfield said at a February 20 faculty meeting that, in its request, Congress is being "over-simplistic" about how schools manage their endowments. She said that MIT has "a strong position on financial aid," by, among other examples, supporting a need-blind admissions policy and providing 62 percent of students internal need-based scholarships.

She said that MIT cannot be compared with similarly ranked universities such as Harvard University and Yale University because MIT has a much higher percentage of students studying science and engineering, which are, in general, more costly than study in the humanities. She also noted that the financial backgrounds of MIT students are different than those of students at similarly ranked schools. MIT cannot match Harvard and Yale's recent financial aid increases for middle income families without "eroding support" for lower income families.

She told the faculty that MIT will make a public statement on financial aid in early March but that they should not expect any sweeping changes in financial aid, such as those announced by Harvard, Yale, and, most recently, Stanford University.

Regarding the Senate's mention of pay-out rules, Hockfield explained how endowment spending cannot be simplified to just a simple percentage, as MIT must take into account its various needs and the requirements of the 2000-

Endowment, Page 10



MARK THOMPSON

Keynote speaker Ray Hammond comments on the future of Dr. King's message by asking the audience, "What now?" at the 34th Annual Dr. Martin Luther King Jr. Celebration held in Walker on Thursday morning.

ARTS

You mean you *don't* record over video rentals? Check out the review of 'Be Kind Rewind.'

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WORLD & NATION

Researchers Exploit DRAM Vulnerability

By John Markoff

THE NEW YORK TIMES

SAN FRANCISCO

A group led by a Princeton University computer security researcher has developed a simple method to steal encrypted information stored on computer hard disks.

The technique, which could undermine security software protecting critical data on computers, is as easy as chilling a computer memory chip with a blast of frigid air from a can of dust remover. Encryption software is widely used by companies and government agencies, especially in portable computers that are especially susceptible to being stolen.

The development, which was described on the group's Web site on Thursday, could also have implications for the protection of encrypted personal data from prosecutors. The move, which cannot be carried out remotely, exploits a little-known vulnerability of the dynamic random access, or DRAM, chip. Those chips temporarily hold data, including the keys to modern data-scrambling algorithms. When the computer's electrical power is shut off, the data, including the keys, is supposed to disappear.

New Charges of Cheating Emerge Against the Patriots

By John Branch

and Greg Bishop

THE NEW YORK TIMES

INDIANAPOLIS

The Patriots' pattern of illicitly videotaping the signals of opposing NFL coaches began in coach Bill Belichick's first preseason with the team in 2000, a former Patriots player said. The information was then put to use in that year's regular-season opener against the Tampa Bay Buccaneers, Belichick's debut as New England's head coach.

The habit of secretly taping signals, which is against league rules, continued at least through three championship seasons to the 2007 season opener against the Jets, when the Patriots were caught and subsequently sanctioned by the league.

But it was not the first time the Patriots had been spotted taping another team's defensive coaches at the Meadowlands. In the final preseason game of 2006, the Patriots were caught taping a Giants defensive assistant coach giving signals, several executives within the league said.

The incident prompted a letter addressed to all teams seven days later from the NFL vice president Ray Anderson that detailed the league's interpretation of the rules.

Security Council Weighs New Sanctions on Iran

By Warren Hoge

THE NEW YORK TIMES

UNITED NATIONS

The Security Council on Thursday began formal consideration of a new resolution on Iran's nuclear program that imposes restrictions on cargo to and from Iran, travel bans, the freezing of assets for people involved in the program and tightened monitoring of Iranian financial institutions.

Britain and France introduced the measure but said they would leave it open for "further substantive comments" from other council members next week before pushing for a vote in March.

The tactic was adopted to meet objections from council members Indonesia, Libya, South Africa and Vietnam, who said they wanted to await the conclusions of a report by Mohamed ElBaradei, the director general of the International Atomic Energy Agency, to be made public in Vienna on Friday before committing themselves to a final text.

The measure's backers argue that the ElBaradei inquiry is about Iran's atomic past, not its current activities, and should have no bearing on the draft. But they agreed to the continued consideration in the interests of obtaining unanimity among the 15 council members.

Serbian Protestors Set Fire To Unprotected U.S. Embassy

By Bostjan Videmsek and Dan Bilefsky

THE NEW YORK TIMES

BELGRADE, SERBIA

Demonstrators attacked the U.S. Embassy and set part of it ablaze on Thursday as tens of thousands of angry Serbs took to the streets of Belgrade to protest Kosovo's declaration of independence.

The United States has been a strong advocate of Kosovo's independence from Serbia and was among the first countries to recognize the new state, stoking deep resentment.

Rian Harris, an embassy spokeswoman, said that a body had been found inside the building, but that all embassy staff members were accounted for.

Witnesses said that at least 100 people broke into the embassy, which was closed, and burned some of its rooms. One protester ripped the American flag from the facade of the building. An estimated 1,000 demonstrators cheered as the vandals, some wearing masks to conceal their faces, jumped onto the building's balcony waving a Serbian flag and chanting "Serbia, Serbia!" the witnesses said.

A convoy of police firing tear gas was able to disperse the crowd. The Associated Press reported that the small fires at the embassy were quickly extinguished by firefighters. Serbian television reported that the Croatian Embassy had also been attacked, and the state news agency said the Bosnian and Turkish Embassies were also targeted. The police said at least 140 people had been injured in the incidents, 32 of them police. Security sources estimated that 150,000 people joined the protests.

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Groups broke into a McDonald's in central Belgrade and destroyed its interior. Witnesses said vandals were attacking foreign-owned shops, including a Nike store, and were seen carrying off shoes and other goods as the Serbian police looked on.

The U.S. Embassy had been closed since Sunday after it was stoned by demonstrators, and employees had been told to stay home.

R. Nicholas Burns, the undersecretary of state for political affairs, telephoned Serbian officials to formally complain about the breaching of the embassy, said State Department spokesman Sean McCormack. McCormack told reporters on Thursday that the United States would

"hold the Serbian government personally responsible for the safety and well-being of our embassy employees."

He added that the security that had been provided was completely inadequate.

At the United Nations, Zalmay Khalilzad, the U.S. ambassador, said he was "outraged" by the attack on the embassy and would be seeking a unanimous statement from the 15-member Security Council condemning it.

The violence fueled growing fears in Washington and Brussels that Serbia was turning to the virulent nationalism of the past.

But Serbian analysts predicted that the country would ultimately embrace the West as it came to terms with losing its medieval heartland.

In recent days, Western leaders have looked on with growing alarm as Serbia's hard-line prime minister, Vojislav Kostunica, who helped lead the revolution that overthrew Slobodan Milosevic in 2000, has replicated the nationalist rhetoric of the late dictator, who used Serbs' outrage that their ancestral heartland was dominated by Muslim Albanians to come to power in Serbia.

Shift in Pakistan Could Curtail Attacks on Terrorist Suspects

By Eric Schmitt and David E. Sanger

THE NEW YORK TIMES

WASHINGTON

American officials reached a quiet understanding with Pakistan's leader last month to intensify secret strikes against suspected terrorists by unmanned aircraft launched inside Pakistan, senior officials in both governments say. But the prospect of changes in Pakistan's government has the Bush administration worried that the new operations could be curtailed.

Among other things, the new arrangements allowed an increase in the number and scope of patrols and strikes by armed Predator surveillance aircraft launched from a secret base inside Pakistan — a far more aggressive strategy to attack al-Qaida and the Taliban.

But since opposition parties

emerged victorious from the election early this week, American officials are worried that the new, more permissive arrangement could be choked off in its infancy.

In the weeks before Monday's election, a series of meetings among President Bush's national security advisers resulted in a significant relaxation of the rules under which American forces could aim attacks at suspected Qaida and Taliban fighters in the areas near Pakistan's border with Afghanistan. The change, described by senior American and Pakistani officials who would not speak for attribution because the program is classified, allows American military commanders greater leeway to choose from what one official who participated in the debate called "a Chinese menu" of attack options.

Instead of having to confirm the identity of a suspected militant

leader before attacking, this shift allowed American operators to strike convoys that bear the characteristics of Qaida or Taliban leaders on the run, for instance, so long as the risk of civilian casualties is judged to be low.

The new, looser rules of engagement may have their biggest impact at a secret CIA base in Pakistan whose existence was described by American and Pakistani officials who had previously kept it secret to avoid embarrassing President Pervez Musharraf. Musharraf, whose party lost in this week's election by margins that surprised American officials, has been accused by political rivals of being too close to the United States.

The base in Pakistan is home to a handful of Predators — unmanned aircraft that are controlled from the United States.

WEATHER

Snowy End to the Week

By John K. Williams

STAFF METEOROLOGIST

A winter storm is fast approaching southern New England to finish the work week. Unlike nearly every storm to hit the area since late December, this one should remain mostly in the form of snow. Light snow should begin by noon and become steadier and heavier toward the evening. Expect a few inches on the ground by nightfall, which should feature a tough commute for anyone working until 5.

Before tapering after midnight, we should see anywhere from 6 to 9 inches with the lower amount as a result of sleet mixing in, which may occur briefly around 7 p.m. Even though the moderate snow will be over around midnight, light snow and flurries could continue through midday tomorrow. Unfortunately at this point it looks like a pretty dry snow, suboptimal for snowball fights and/or artistic endeavors. Sunny weather and moderating temperatures will be the rule after the storm's departure as there is no reinforcing shot of cold air in its wake. The slight warming trend will continue next week likely causing the next storm to be mainly rain.

Extended Forecast

Today: Snow developing, several inches by dinner time. High 30°F (-1°C).

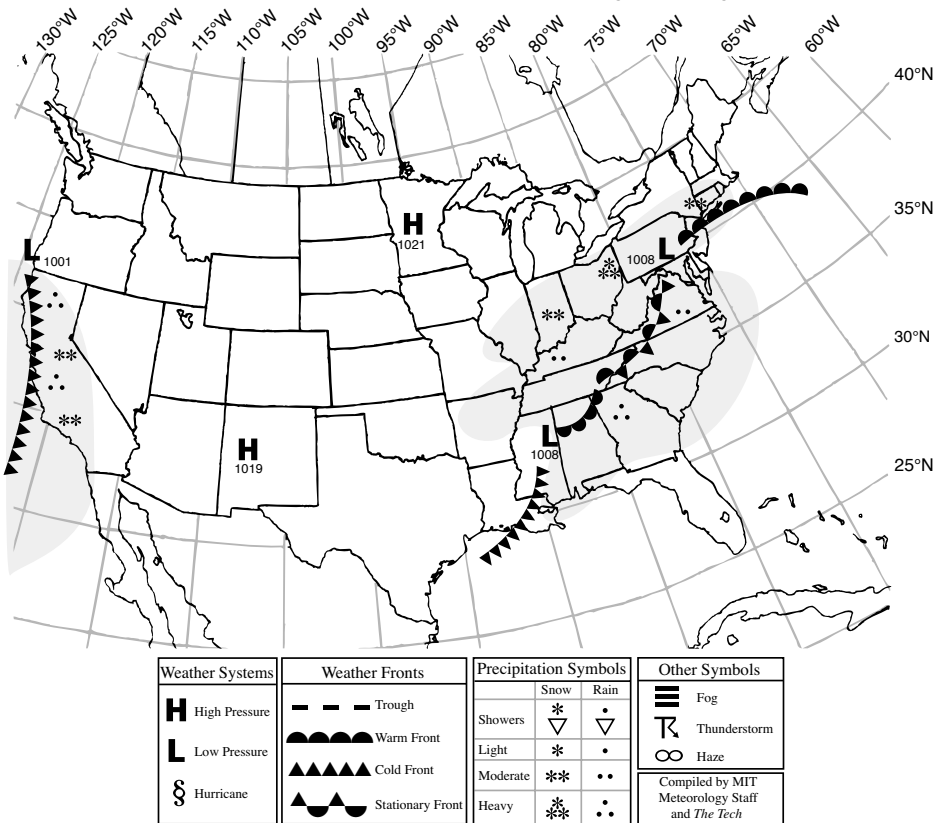
Tonight: Moderate to heavy snow becoming lighter after midnight. Mix with sleet possible in the evening. Total accumulation around 7 inches. Low 27°F (-3°C).

Tomorrow: Persistent light snow and flurries through midday, cloudy skies thereafter. High 33°F (1°C).

Thursday: Sunny, melting snow. 38°F (3°C).

Monday: Mostly sunny. 41°F (5°C).

Situation for Noon Eastern Standard Time, Friday, February 22, 2008



Arab Leaders Will Press Israel For Response to Peace Initiative

By Michael Slackman
THE NEW YORK TIMES

CAIRO, EGYPT Arab leaders will threaten to rescind their offer of full relations with Israel in exchange for a complete Israeli withdrawal from occupied lands unless Israel gives a positive response to their initiative, indicating the Arab states' growing disillusionment with the prospects of a two-state solution for the Israeli-Palestinian conflict.

At an Arab League meeting in March in Syria, the leaders plan to reiterate support for their initiative, first issued in 2002. The initiative promised Israel normalization with the league's 22 members in return for the creation of a Palestinian state on the West Bank and Gaza Strip, with East Jerusalem as the capital, and a resolution of the issue of Palestinian refugees.

But this time, "there will be a message to Israel emphasizing the need to respond to the initiative; otherwise, Arab states will reassess the previous stage of peace," said Muhammad Sobeih, assistant secretary-general of the Arab League in charge of the Palestinian issue. "They will withdraw

the initiative and look for other options. It makes no sense to insist on something that Israel is rejecting."

Many Arab leaders never warmly embraced the idea of a two-state solution to the conflict because of their distaste for Israel, but they accepted it as a means to stabilize the region and tamp down extremism. Now, however, there is a growing feeling that Israel wants to create only a rump Palestinian state that would be neither viable nor truly sovereign. And that, officials say, is not only unacceptable, but also dangerous.

That perception hit Arab leaders hard when hundreds of thousands of Palestinians crashed through the border between the Gaza Strip and Egypt in January, in the wake of an Israeli policy to cut off supplies to Gaza to protest the rule of Hamas there and the continuing rocket fire on Israel.

When the Palestinians poured into Egypt, suddenly, officials in both Jordan and Egypt — the only neighbors with peace treaties with Israel — grew frightened that Israel planned to solve its Palestinian problem by forcing Egypt to absorb Gaza, and Jordan the West Bank.

"The crisis was an awakening for those who didn't know or were not familiar with plans or ideas to drop Gaza on Egypt's shoulder," said an Egyptian government official speaking on condition of anonymity because of the delicacy of the subject. Israeli officials have said over the years that they would like Egypt to take over administration of Gaza.

As a result, there is a growing sentiment in Arab states that the principle at the core of the peace process — the two-state solution — has no future. Increasingly, the peace process, once aimed at figuring out how to get from here to there, is back to a more fundamental point: where to go.

"There Is No Longer Space for Two States on the Palestinian Land," read a headline in a recent edition of Al Hayat, a pan-Arab newspaper in London.

One of Egypt's English-language newspapers, The Egyptian Mail, ran this headline about a week later: "No Hope for Two-State Solution."

Egyptians and Jordanians say that the way events have evolved, there is no likelihood that a real Palestinian state would be formed.

McCain Disaffirms Aides' Concern Over Close Ties to Female Lobbyist

By Elisabeth Bumiller
THE NEW YORK TIMES

TOLEDO, OHIO Sen. John McCain on Thursday disputed an account in The New York Times that top advisers had confronted him during his first presidential run with concerns about his ties to a woman lobbyist.

"Obviously, I'm very disappointed in the article — it's not true," McCain said at a morning news conference in Toledo, where he was campaigning for president. "At no time have I ever done anything that would betray the public trust or make a decision which in any way would not be in the public interest or would favor anyone or organization."

Asked if he ever had a romantic relationship with the woman, Vicki Iseman, 40, McCain, 71, responded, "No." He described his relationship with Iseman as "friends" and said he had last seen her "several months ago" at an event.

McCain's wife, Cindy, stood at his side throughout the news conference. "My children and I not only trust my husband, but know that he would never do anything to not only disappoint

our family but disappoint the people of America," Cindy McCain said. "He's a man of great character."

The couple were responding to an article on Thursday that said Iseman's recurring appearances in 1999 at fundraisers, in his office and at campaign events alarmed some top advisers, prompting several to warn him that his association with her could threaten his reputation as a scourge of special interests.

McCain said he was never involved in such discussions. "I don't know if it happened at their level, it certainly didn't happen to me," he said

At his press conference, McCain also said he had no knowledge that a top aide had asked Iseman to keep her distance from the senator and his campaign.

John Weaver, a former top McCain strategist and now an informal campaign adviser, had told the newspaper that he met with the lobbyist, a partner at the firm Alcala & Fay, at Washington's Union Station in early 1999.

"I don't know anything about it," McCain said. "Since it was in The New York Times, I don't take it at

face value."

Weaver declined to comment to The Times on Thursday. He told the Washington Post Web site, however, that he had not informed McCain about the meeting in advance.

He also expanded on his initial description to the Times of the discussion with Iseman. He had said, without elaborating, that he had warned Iseman away because of "what she had told people" that had "made its way back" to the McCain campaign.

In a statement to the Web site of The Atlantic Monthly, Weaver said the comments that concerned him were about "strong ties to John's committee staff, personal staff and to him."

Later in the day, one of McCain's senior advisers leveled harsh criticism at The New York Times in what appeared to be a deliberate campaign strategy to wage a war with the newspaper. McCain is deeply distrusted by conservatives on a number of issues, not least because of his rapport with the news media, but he could find common ground with them in attacking a newspaper that many conservatives revile as a left-wing publication.

A Defective Satellite is Obliterated, But Numerous Questions Still Linger

By Thom Shanker
THE NEW YORK TIMES

WASHINGTON Videotape of the Navy mission to shoot down a dying spy satellite made available Thursday shows an interceptor missile ascending atop a bright trail of burning fuel, and then a flash, a fireball, a plume of vapor. A cloud of debris left little doubt that the missile had squarely hit its mark as it spent its final days orbiting more than 130 miles above the Pacific Ocean.

A different kind of doubt still lingers, though, expressed by policy analysts, some politicians and scientists, and not a few foreign powers, especially China and Russia:

Should the people of the world be breathing a sigh of relief that the risk has passed of a half-ton of frozen, toxic rocket fuel landing who knows where? Or should they be worried about the latest display of America's technical prowess, and see it as a thinly veiled test for a shadow anti-satellite program?

Defense Secretary Robert M. Gates, who personally gave the order to proceed with the satellite shoot-

down Wednesday, told reporters in Hawaii on Thursday that he was prepared to share some details of the operation with China to alleviate its concerns that the debris still may prove dangerous. Adm. Timothy J. Keating, the commander of U.S. forces in the Pacific, has reached out to a number of nations in the region to explain the mission, as well.

Addressing the diplomatic concerns, senior officials dismissed questions raised by the Chinese and Russians, and echoed by some arms control analysts, about whether the episode was really a test of space weaponry. They pointed out that the missile used in the operation, the Navy's SM-3 interceptor, was designed to counter a limited ballistic missile attack and had to be completely reprogrammed for this unexpected task, the likes of which the authorities are unlikely ever to face again.

In missile defense, an interceptor must find a red-hot enemy warhead as it arcs on a relatively short ballistic path — a task often described as "hitting a bullet with a bullet." This time, the target — much larger than a war-

head, almost the size of a school bus — was circling the Earth predictably about 16 times a day.

It was still a bit of a long shot. The fuel tank that was the bull's eye was only about 40 inches across.

And although the United States has hit test targets in space before — including a satellite destroyed in 1985 in a demonstration of an anti-satellite weapon launched from a fighter jet — the successful demonstrations have been relatively few and far between.

What Wednesday's successful strike in space conclusively proved was not infallibility but a robust and flexible military capability that can be cited by either side in what no doubt will be the ensuing debate.

The mission was conducted from Navy warships. So the United States can move this capability at will over three-quarters of the Earth's surface.

The missile-defense interceptor was converted to an antisatellite capability in little more than a month. No expensive research and development program. No battles with Congress over money. No starting from scratch on white boards in some lab.

CIA Says it Used British Territory for Renditions

By John F. Burns
THE NEW YORK TIMES

LONDON In tones freighted with frustration, Britain's foreign secretary, David Miliband, told the House of Commons on Thursday that, "contrary to earlier explicit assurances," the Central Intelligence Agency had confirmed using an American-operated airfield on a British island in the Indian Ocean for refueling two "rendition" flights carrying terrorism suspects in 2002.

The American acknowledgment contradicted previous assurances by the United States to Britain's government that no such flights had landed on British territory or passed through British airspace. Each flight carried a single detainee and stopped on the island of Diego Garcia.

Although the CIA attributed its earlier denials to a "flawed records search," the admission could add to the animosity the government here has aroused over its alliance with the United States in the wars in Afghanistan and Iraq.

Miliband's statement prompted protests from members of Parliament of various parties and from British-based human rights groups that have contended for years that Britain was a knowing or unknowing partner in the American use of rendition flights. The term gained much of its notoriety from the American practice after Sept. 11, 2001, of transporting terrorism suspects secretly to other countries for interrogation.

The director of the Central Intelligence Agency, Gen. Michael V. Hayden, informed British officials of the 2002 flights last week during a visit to London. He issued a statement Thursday to the agency's staff in Washington saying a fresh review of agency records had shown that the CIA had erred in assuring Britain previously that "there had been no rendition flights involving their soil or airspace" since the Sept. 11 attacks.

At Toyota, Global Giant Reaches for Agility

By Micheline Maynard
THE NEW YORK TIMES

TOYOTA CITY, JAPAN At Toyota's training center inside its Motomachi assembly complex here, workers use golf balls to limber up their fingers before they learn new tasks on the factory floor.

Holding two balls in either hand, they try to make them revolve in opposite directions, which requires a surprising amount of concentration.

The exercises are just a small part of Toyota's plan to search continually for ways to streamline methods to build its cars, breaking down the steps used in thousands of tasks on the assembly line in order to teach them to new employees and managers.

Toyota sees the training centers — one here and another in Georgetown, Ky., as well as more planned for elsewhere in the world — as an important tool as it gears up for its next major phase of growth.

With plants in 27 countries, more new factories under construction and workers speaking languages that include Russian and Turkish, Toyota's top executives are trying a difficult balancing act — replicating the company's success and operating principles in other countries while ceding more control to these new outposts at the same time.

Such thinking represents not just a challenge of reconciling conflicting goals — to control and let go simultaneously — but also a fundamental shift for Toyota, where senior management jobs are held entirely by Japanese executives, and whose major operations, from engineering to design to strategic planning, remain based in this city about 200 miles west of Tokyo.

Microsoft Will Share More Secrets

By Steve Lohr
THE NEW YORK TIMES

Seeking to satisfy European antitrust officials, Microsoft said on Thursday that it would open up and share many more of its technical secrets with the rest of the software industry and competitors.

Microsoft executives, in a conference call, characterized the announcement as a "strategic shift" in the company's business practices and its handling of technical information. They also portrayed the moves as only partly a nod to the continuing challenge Microsoft faces from Europe's antitrust regulators.

The broader goal, they said, was to bring Microsoft's flagship personal computer products — the Windows operating system and Office productivity programs — further into the Internet era of computing. Increasingly, people want a seamless flow of documents, data and programming code among desktop PCs and the Internet, especially as they make the shift from using software on a PC to using services on the Web.

"These steps are being taken on our own," said Steve Ballmer, Microsoft's chief executive. The move, he said, was a recognition of Microsoft's "unique legal situation," but it was also the company's effort to adapt to "the opportunities and risks of a more connected, more services-oriented world."

Scientists Measure What it Takes to Push a Single Atom

By Kenneth Chang
THE NEW YORK TIMES

IBM scientists have measured the force needed to nudge one atom. About one-130-millionth of an ounce of force pushes a cobalt atom across a smooth, flat piece of platinum.

Pushing the same atom along a copper surface is easier, just one-1,600-millionth of an ounce of force.

The scientists report these minuscule findings in Friday's issue of the journal Science.

IBM scientists have been pushing atoms around for some time, since Donald M. Eigler of the company's Almaden Research Center in San Jose spelled "IBM" using 35 xenon atoms in 1989. Since then, researchers at the company have continued to explore how they might be able to construct structures and electronic components out of individual atoms.

Knowing the precise forces required to move atoms "helps us to understand what is possible and what is not possible," said Andreas J. Heinrich, a physicist at Almaden and an author of the new Science paper. "It's a stepping stone for us, but it's by no means the end goal."

OPINION

The Necessity of Hope



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Rahmat Muhammad

On Tuesday, Wisconsin handed Barack Obama his ninth consecutive victory in the race for the Democratic nomination. In state after state, Obama's speeches have drawn together thousands of people from all backgrounds to stand up and shout "Yes we can." But, as Obama-mania fades in the coming months, the focus will turn to where each candidate stands on the issues. Political pundits have repeatedly argued that although Obama is inspirational, he doesn't address the "meat-and-potatoes problems." David Brooks of the New York Times calls Obama's message of hope "vaporous." So what are his policies? This question is being echoed more loudly with Obama's increasing success in the primaries. While I agree that Obama should provide a more concrete outline of the policies he wants to enact and how, it is my opinion that his message of hope represents a world-view that will have a real impact on questions of policy.

Bush's unilateral world-view has cost us the respect and cooperation of allied nations and trapped us in an unjustified war. After 9/11, there was a small window of time when we had the sympathies of the world — but instead of forging stronger relationships with new allies (especially in the Middle East), we antagonized even our friends. Having gotten us into the war in Iraq, Bush's insistence that its neighbors constitute an "Axis of Evil" led Congress to enact policies that isolated these nations. As a result those nations did little to help in Iraq, and some even undermined its stability.

Elsewhere, this administration's policies on homeland security have been guided by the world-view that America is fighting a war between good and evil and that terrorists are everywhere, waiting to strike. Bush and his advisors have engineered a campaign of fear which has slowly eroded both the spirit and civil rights of the American people.

This spirit is what Obama is trying to revive. Some might scoff at American optimism, calling it unrealistic and naïve. But they should envy it: this attitude has allowed the U.S. in its short history to surpass every other nation in economic strength and global influence. It is what gave the authors of our constitution the audacity to say that all men are created equal. But the dream of treating every human being with dignity is now in danger — the Bush administration has used fear to convince the American people that certain groups should not be treated equally in the name of national security. The American spirit to stand up for what is right has been stripped and replaced with a reckless panic.

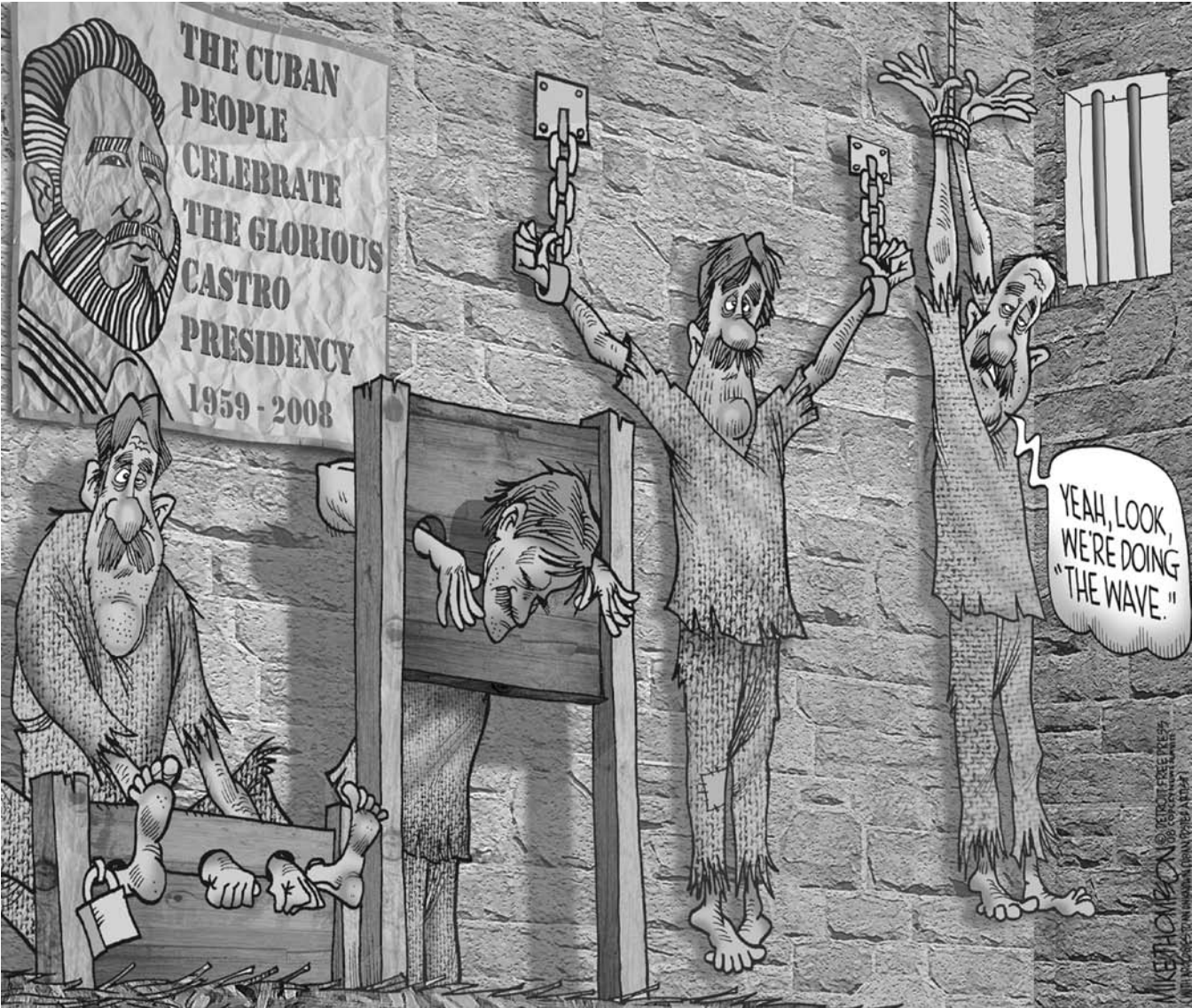
Obama's world-view could lead to policies that reverse the damage done by the Bush administration. In order to increase stability in the Middle East and protect our own national security, our leaders need to work persistently with Iran, Syria, Egypt and Saudi Arabia to encourage Israeli and Palestinian leaders to ratify and enforce the two-state solution. We need leadership that upholds the constitution by insisting that even enemy combatants are entitled to a fair trial. We need to work together with rising economic powers like India and China to ratify trade agreements that ensure jobs for our workers here at home while encouraging trade

with countries that have struggling economies.

There have been two main objections to Obama's candidacy. The first is that at age 47, he is too young and needs more experience in Washington. The second criticism is that he would not fare well against McCain or Romney because he has neither military nor executive experience. These are reasonable objections, but Obama has the one asset that can trump either shortcoming: a unique ability to unite America and to help us reclaim our rightful place as first among equals in the international sphere. His ability to do so is based on a hopeful world-view of "us working together with them" rather than the divisive "us versus them" of the Bush administration.

Despite what the pundits say, Obama's message of hope could be the world-view that truly turns America in the right direction. As a guiding principle, it will influence his selection of advisors, who will in turn be critical to implementing real policies for change. Obama's message is a reminder of the way America should be: a country of hope and optimism, a country that does not retreat into nationalism at the expense of the ideals that our forefathers fought so hard to realize. Throughout American history, when national turmoil threatened to divide the country, leaders like Abraham Lincoln, Martin Luther King Jr. and John F. Kennedy had the audacity to believe in the dream of America and to challenge the nation. The message of hope reminds us that the dream can still be realized if we as a country are not burdened with fear but uplifted by hope.

Rahmat Muhammad is a graduate student in the Department of Brain and Cognitive Sciences.



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IT'S FRIDAY

Brought to you by CAMPUS LIFE

The Tech, February 22, 2008, Page 5

Figuring out Fashion The Art of Layering

Manisha Padi and Ying Yang

As spring semester kicks off, long hours in freezing classrooms and psets galore are bringing us back to earth after the good times of IAP. We all would love to show off the fruits of our holiday bargain shopping, but the cold is forcing us to cover up with the usual MIT sweatshirts and baggy sweatpants. Isn't it frustrating that cute, affordable clothes in the winter seem to come only in short sleeves?

We refuse to settle for bland, unflattering winter layers and want to pack some punch with lively, practical outfits for every day tooling.

So we here at Figuring out Fashion decided to take a long trip to the mall, and a long, hard look at what works and doesn't work in the world of layering.

This week's goal: To gain the fashion know-how to always be able to take off our coats in class no matter how cold it is.

The key to sophisticated layering is being able

to actually see every layer — otherwise, how can anyone tell you're dressing so ingeniously? We found that the best way to make this happen is to use the brightest colors on the inner layers and to work out to neutrals in outer layers. This way, you can buy fewer thick outer layers (which tend to be more expensive) and change up the inner layers more often. A little strategically placed color will make your neutrals look chic and fun without seeming too serious and dull.

We started with a tight tank top or undershirt as the first base layer. Not only does it protect the most important part of you (your chest) but it also smooths over flaws to make them less visible.

What next? If it's not too cold, wear a warm sweater that buttons, zips, or has a low neck that shows off the under layers while still covering up. For ladies, if you've made your under layer long enough, now you can play around with shorter lengths.

For extremely cold days, insert another layer. Try a grownup short-sleeve over long-sleeve look. Guys, this means rich, unusually colored T-shirts or polos. Ladies have more options — for example, a short puff sleeve over a fitted long sleeve (a great way to use short sleeved sweaters from the fall). Also, we found a simple, fitted collared shirt layered great on both genders.

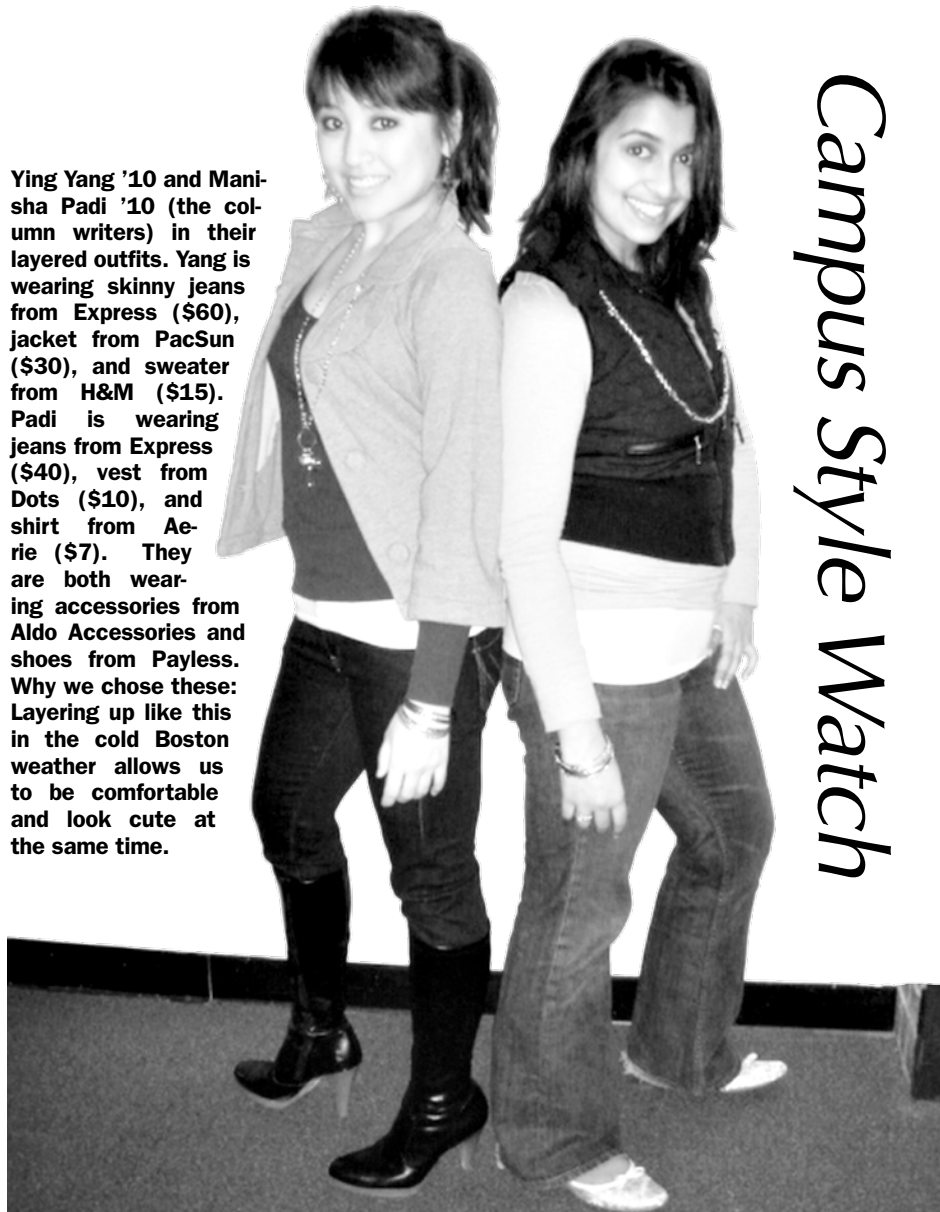
For a final layer, you could go for a less fitted sweater, again the kind that shows off under layers. An even more exciting choice is a warm vest. We recommend a tighter style, though poofy or not poofy is personal choice. A spring jacket also works well sometimes, as long as it's tight. For a sportier look, go for a short track jacket.

If you don't feel like layering up so much, brighten up your look simply with a bright turtleneck underneath your jacket and add a bright belt. Sorbet colors are perfect under just about

anything and they add a pop to neutral pants, jackets, and suits. Even a bright colored scarf can brighten up the duller of outfits in a flash.

Also for guys, the bright and more embellished clothes should be on top. Perhaps choose a neutral colored thermal top over a graphic tee or button down. In fact, a nice button down with a cardigan is a great combination as well. We are all geeks, but that doesn't mean you can't be a cool geek. Unlike its name, geek chic is very flattering for guys. Layering a button down shirt with an argyle cardigan or sweater vest not only makes you look intelligent; it lets you feel stylish at the same time. Avoid the 'stuffy' look by keeping the buttons undone and exposing the collar and cuffs.

We hope our ventures have given you some ideas on how to put together layered outfits. We'll join you in your layering adventures this semester, and we'll see you around campus trying to Figure out Fashion!



Ying Yang '10 and Manisha Padi '10 (the column writers) in their layered outfits. Yang is wearing skinny jeans from Express (\$60), jacket from PacSun (\$30), and sweater from H&M (\$15). Padi is wearing jeans from Express (\$40), vest from Dots (\$10), and shirt from Aerie (\$7). They are both wearing accessories from Aldo Accessories and shoes from Payless. Why we chose these: Layering up like this in the cold Boston weather allows us to be comfortable and look cute at the same time.

Campus Style Watch

ADAM F. SCHWARTZ

Life Lemmas Iron Man

By David Shirokoff

A few years ago when I was 18 and moving out to university, my mom gave me an iron. Don't get me wrong, practical gifts are great and by no means am I ungrateful. I'm sure you can imagine every 18 year old male, bags packed, shipping out to the big city, dreams of receiving an iron to go with that kiss from his mother. The truth is I don't remember using an iron in the first 18 years of my life. Why not just keep it that way for another 18? It's not like one needs an iron to navigate the tribulations of frosh days. Rather, one could dream up half a dozen more vital items: a coffee machine, a hockey stick or a gross of Mr. Noodles. I contained my thoughts, graciously accepting the iron wondering if I would ever actually use the thing. So it sat in my dorm, unopened for months, as a bookend holding up our friend Michael Spivak's *Calculus*.

Freshman spring semester brought with it E&M — my version of 8.02. The class had labs! One lab prep required us to make homemade capacitors — two pieces of aluminum foil, wax paper as a dielectric and interestingly enough, an

iron to mush everything together.

It's 1:00 a.m., my lab starts in 8 hours, and I'm still short one capacitor. I can't believe my good fortune — finding an iron at this time may prove difficult as all the artsy girls I know are sleeping or partying. I rip open the box and, having never used one of these things before, actually gaze over the instructions.

Now you may be impressed with the idea of making home grown capacitors and you're probably dying to know just how great these puppies really are. To satisfy any curiosities, I went through the pain of digging out my freshman lab book. Wax paper has a relative dielectric of around 3, which translates into a surprisingly beefy capacitance of roughly 1 nanofarad per square inch. Just to give you some physical intuition, one square inch already contains a capacitance one hundred to one thousand times larger than my dead dog. Unfortunately even at this rate you'd have to iron the whole damn roll of aluminum foil to pack any real punch (for the keen engineers out there willing to try this I have no idea what the breakdown voltage is).

The iron lay dormant for another year and

Quotes from the Facebook Group: Overheard At MIT

"I wasn't alone. I was with my computer."

—Unknown

"So what do you think the refractive index of alcohol is?"

—Unknown in an alcohol line at a party

"That's a singular matrix!"

—Some guy commenting on a Super Smash Bros. scoreboard

To submit quotes, join the Facebook group!
Special thanks to group creator Kristin M. Rose '10.

Top 5 Jazz Ballads to Put on While Engaging in Sweet Baby-Making Love

1. Anything from John Coltrane's *Ballads* album
2. "Tenderly," Ben Webster
3. "When I Fall in Love," Isaac Hayes
4. "Duke Ellington's Sound of Love," Charles Mingus
5. "La Mesha," Joe Henderson

Notes: Coltrane's *Ballads* album is a masterpiece in quiet beauty; if pressed, I'd recommend "Nancy (With the Laughing Face)," but just put the entire album on while doing your thing. Ben Webster's tone is silky smooth and airily husky, perfect for any romantic encounter. Isaac Hayes croons a standard here in the most pleading, honest manner — laced with vibrato and Memphis soul — but still delicately. The only drawback is the tune's short length; try putting it on repeat for longer engagements. Mingus's long composition echoes both Ellington and Billy Strayhorn (listen for the allusion to "Lush Life"), and presents some adventurous soloing. Stick around for the melody's climax at the end (hopefully literally). Disregard McCoy Tyner's piano intro to "La Mesha" and get right into the action. The trumpet's leading tones during the spacious melody are lovely and Henderson's passionate tenor is always a welcome sound while creating a little passion of your own.

DJ: Jack Murphy (<http://runningreturning.blogspot.com>)
Running, Returning — Exploration into the depths of swinging, funky rhythm drawing from the Venn diagrams of jazz, funk, soul, and other stellar regions.
Time: 8-10 Sunday nights between "R&B Jukebox" and "For Your Pleasure"

wmbr
88.1fm

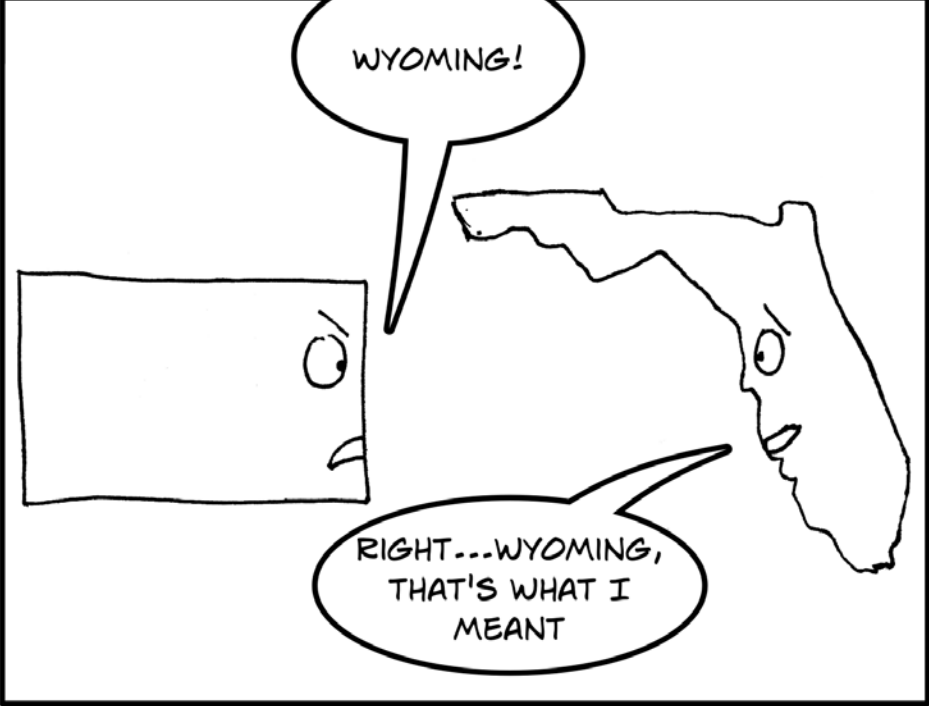
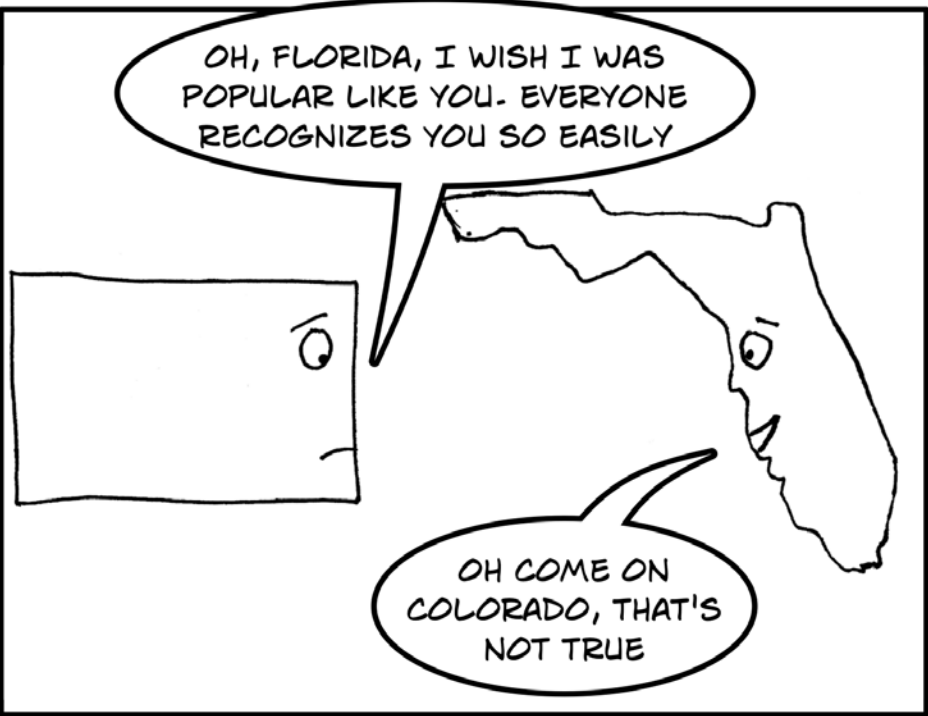
half. By this time I was the proud owner of an ample supply of capacitors. Rather the new problem was moving out of my residence. I needed a desk and a bookshelf to keep the iron on. Instead of buying these items, I decided to build my own, plywood, sandpaper and some iron on trim. I don't think I need to spell it out, but iron on trim just doesn't stick by itself.

Now I've used my iron twice in as many years and it hasn't ever touched a pair of pants. I start to wonder how such a situation might arise when the answer hits me: an iron is nothing more than a hotplate with a handle — as if someone robbed

a chem. lab of its second greatest item, the first being a Bunsen burner, and re-engineered it into a portable, compact form. Thinking back to those first years of undergrad, it's a real miracle I only ever used the iron twice. Heck, closer inspection reveals my Black & Decker even comes with Teflon coating. Not only can I cook my eggs, I don't have to worry about them sticking either. Maybe an iron really is a perfect gift for an 18-year-old engineering student. Although, if my Mother knew her progeny was en route to becoming the true iron chef, she may have opted for the coffee pot.

Steal My Comic

by Michael Ciuffo



“Words - WORDS, Words”

by Philip Engel

Across

1. Edgy mirages, spectacles: Wonders! (8)

5. Seal like a youthful swan (6)

10. Introduce unusual discount (9)

11. Indian city’s operator greeting (5)

12. Generally, Robert’s calm side (3)

13. “Of course around six, reorganize. You slob!” (9)

15. Lawless portrayal: Exes near prime locations (4)

19. Doctor messes up indoor closeting (15)

22. Hardy woman, nicknamed Theresa, hears horse race on meadow (4, 11)

24. Clue mix-up: See 8 Down (4)

27. Changing crone into croon (9)

31. A hairstyle hubbub (3)

32. Usually partially softened (5)

33. King who hitched many an electrical unit together with physics (5, 4)

34. Sadness in Southwest: Spectacles surround railroad (6)

35. Female disciple is not amateur to earn first. Gee! (8)

Down

1. Italian plumber netted all but last puppet (10)

2. Before mid-month, Communist Four splits again (9)

3. Alternatively, charcoal or chocolate source (5)

4. Issues caused by changing times (5)

6. Catalogue doesn’t have top glass cleaner (5)

7. Synthetic fabric only made after Nike (5)

8. Twiglike object without its tail (4)

9. Lone and nothing but (4)

14. Medieval weapon created from large tree limb (7)

16. Example about right unit of energy (3)

17. Protest beheaded friend (4)

18. “Hottie! You manage the review sheet?” (5, 5)

20. Destroy uranium in decay (4)

21. Article one: Lullaby listing (Brit.) (9)

23. It lightens my day? (3)

25. Bury inside preprint errors (5)

26. Chinese dynasty of ballroom dance (5)

27. London district is Southern Ohio without me (4)

28. Look back into barren night, and see inside (5)

29. Vault built of chromium and Spanish platinum (5)

30. Cyanide and arsenic (III), e.g., initially impair one’s nervous system (4)

***Solutions on page 12

Crossword Puzzle
Solution, page 12

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			
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56			57		58					59	60	61
62			63		64				65			
66					67				68			
69					70				71			

ACROSS

1 Industrial arts class

5 Winter Palace ruler

9 Ruffian cadres

14 Red hot flower?

15 Imprint clearly

16 Met production

17 ___-Ude, Russia

18 Roster listing

19 Porkers’ pads

20 Happy retirement

23 Boastful talk

24 Pseudonym

25 Four score

27 Sharp turn

30 Ballpark fig.

31 Family man

32 Soulful Hayes

34 Throw

36 Irritate

40 Eve, often

43 Court proceeding

44 Writer Kingsley

45 Nonclerics

46 French cleric

48 Healthful getaway

50 Told ya!

51 Photographer’s workshop

54 Bout site

56 Triumpher over

57 Fond memories subject

62 Slightly inclined

64 London lockup

65 Neck of the woods

66 Barbecue site

67 Soil sweetener

68 Medicinal tablet

69 Alarm’s disruption

70 Once, once

71 Magnetic recording

DOWN

1 Haul off and belt

2 Sign of saintliness

3 Nearly round

4 Bamboo-eating mammal

5 Wimbledon game

6 Kind of mom

7 High spots

8 Flightless bird

9 Dish the dirt

10 Suited for

11 Pony’s comment

12 Eminent

13 Impudent

21 Chosen ones

22 King’s domain

26 Third Greek letter

27 Vitamin pill mineral

28 Laos locale

29 Prevents from speaking

31 Reporters’ hangouts

33 In the lead

35 Mentalist Geller

37 Bird in hieroglyphics

38 Gala event

39 Soleil Moon ___ of “Punky Brewster”

41 No-no

42 African antelope

47 Circus tent

49 BB, e.g.

51 Trades

52 Receipt number

53 Band together

54 Red of oil well fire-fighting fame

55 Fit to suit

58 Lecherous look

59 “Norma” song

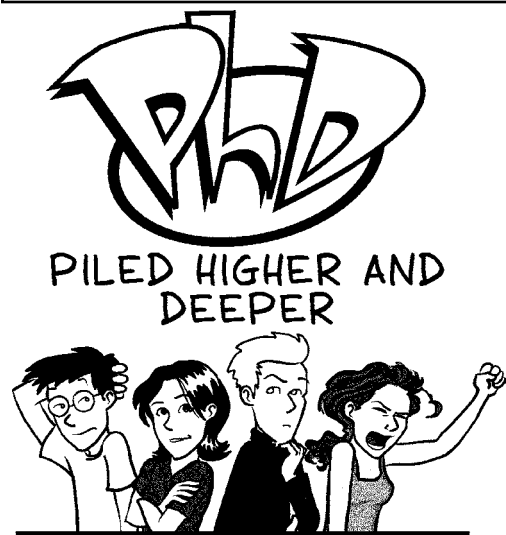
60 High cry

61 Mall enticement

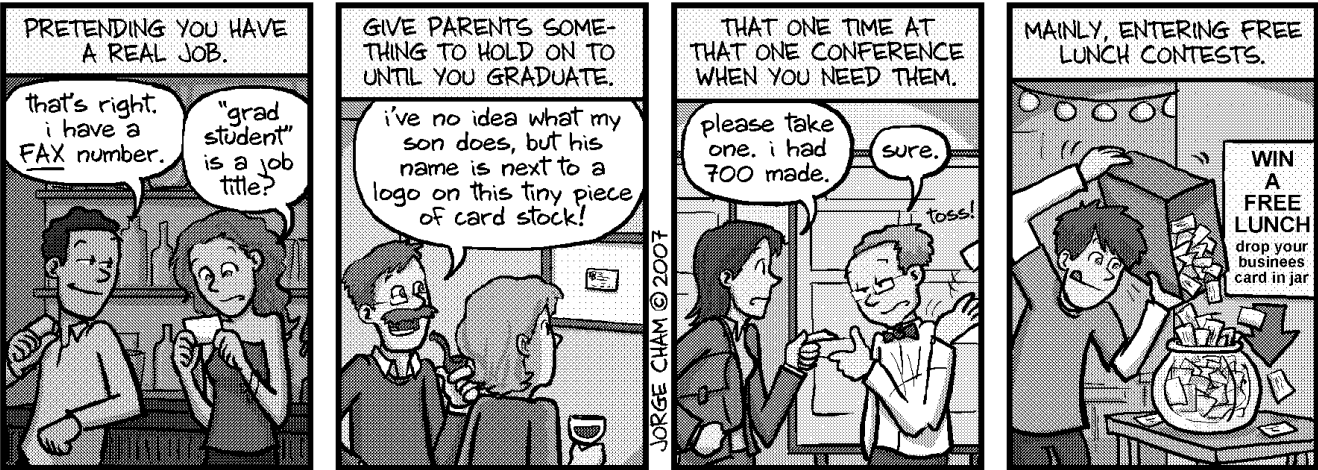
63 Tell it like it isn’t

Doonesbury
BY GARRY TRUDEAU

Dilbert® by Scott Adams



Business cards in grad school: Why you need them



WWW.PHDCOMICS.COM

su | do | ku
© Puzzles by Pappocom

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. Solution on page 12.

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

Solution, tips, and computer program at <http://www.sudoku.com>

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9 0 4 1	8 5 2 1 3	8 7 3 R
1 0 6 9	8 1 7 5 8	R M 2 3 9
6 1 3 R 0	1 5 2 8	R 0 7 4
4 3 6 0 R 7	3 2 0 M 1	8 R 0 M
0 4 6 0	2 8 R 0 8	M 4 7 4
R 4 9 0	R M 0 8	3 R
M 6 4	R 3 7	4 R 2 M
9 5 0 M 3	4 6 0 2 3	1 4 5 6
R 0 4 1 5	2 0 1 M 8	5 M 8 3
9 5 R 1	4 1 6 4 1	3 4 6
2 0 3	2 6 4 1	R 6
5 1 2 3	3 M R	2 4 3 1 8
1 R 5 3 M	R 3 0 M 2	3 6 M
3 9 R	R M	2 4 3 R
R M 5	2 8 4 0	5 1 3 R
2 0 3 1 M 0	3 2 6 1 4	0 1 3 R
4 1 2 3	9 6 5 1 2	8 9 3 2 1
1 3 4 R	9 M R	3 R 2 3
0 8	M 5	M 1 9 2 3
4 R M 1	5 1 9 M	0 3 R 8
8 3 4	M 2 3 6	2 8 1 5
R 3 5 1	R 6 1	0 R 5 M
1 M R 0	6 M 9 R	5 9 2

Think you've solved it?

If you're an MIT student and your answer is correct, you could win a new iPod Nano! Go to libraries.mit.edu/puzzle to get a copy or submit your answer by March 3rd, 2008 to be eligible for the drawing.



CONGRATULATIONS TO THE WINNER OF PUZZLE #3, USMAN AKEJU

ARTS

MOVIE REVIEW

Makeshift Movies With Heart and Soul

Gondry's 'Be Kind Rewind' Reevaluates the Creative Process

By Charles Lin
CAMPUS LIFE EDITOR

Be Kind Rewind
Written and Directed by Michel Gondry
Starring: Jack Black and Mos Def
Rated PG-13
Now Playing

When all the tapes in the video store get erased, an employee and his friend decide to replace them by re-shooting the movies on a shoe-string budget. These two geniuses, played by Mos Def and Jack Black, crappily recreate a slew of classic movies including “Driving Miss Daisy” and “Ghost Busters.” Their hilariously lo-fi remakes, replete with cardboard special effects and overacted catchphrases, become an unexpected hit with the locals. Soon the whole town is onboard with their movie reinterpretation scheme, acting and producing remade hit after hit.

The two protagonists hope that by renting out these remade movies (Sweded as they call them. Don’t ask why—it’s about as random as it gets), they can raise enough money to save their struggling store from being closed. Thus begins the harebrained premise of “Be Kind Rewind,” a new film by Michel Gondry.

Is there more to this movie than watching

Jack Black hilariously recreate some of our generation’s favorite cinematic scenes? First off, if you need more than that, this movie probably isn’t for you. But to answer, yes there is more, a lot more. Just be warned.

“Be Kind Rewind” is a meta sandwich. A layered mess of narratives surrounds and complicates the good-natured story of two buddies willing to do anything to save their beloved video store. To start, it’s a movie about people making movies about movies. At one level (say lettuce), it’s a wry jab at the age of YouTube, where all it takes is a cell phone camera and a free afternoon to construct your own blockbuster. For the rotten tomato, there’s a tongue-in-cheek commentary about copyright culture and the impersonal nature of the Hollywood movie-making machine. To top it off with the cheese, it’s a meditation on the past and what we really leave behind when we leave this world.

Gondry’s movies often dwell on the subject of memory and “Be Kind Rewind” is no different. It’s a vein that runs deep into his persona.

“I think I have this anguish to disappear,” he recounts. “As I grew up my faith sort of disappeared. I was always in anguish of dying. When I was six I realized I might be dead one day and what’s going to happen to me? So obviously I gravitated towards those scenes,

say when you are old and about to die, you’re just a collection of memories. And before you die you forget as well everything, you still are somebody but it’s like you didn’t leave anything. What’s the different when you’re dead if you had a good life or bad life if you didn’t leave anything?”

To kill off the metaphor, what’s the meat of it all? What does “Be Kind Rewind” leave behind? If you manage to get past all the post-modern entrapments, what’s left? I posed this question to Gondry, and he evoked a very simple ideal – that “Be Kind Rewind” is a film about the joy of making movies, movies that you can call your own.

As Gondry describes of the characters’ motives, “They make them from the memories they have, they don’t watch the films and compare, it’s just a sort of collective vague memory that they share. And don’t forget, they recycle all their junk, their location, their home; they recycle themselves in a way. It’s the difference between watching a home movie and a movie on TV. You look at yourself, something you created, and you en-

joy that because you feel good about yourself. It’s very indulgent, and you aren’t very hard on yourself with what you’ve done. It’s good enough that you did it.”

Jack Black sums it up nicely on the movie’s promotional Web site:

“Here’s what Sweding is. You take what you like and mix it with some other things you like and make a new thing. It’s not the thing it was,

but now it’s a new thing based on the old thing. It’s putting you into the old thing you like.”

What it really boils down to is the extremely personal nature of creation. Chances are nobody reading this made “Ghost Busters.” But with a lot of aluminum foil and some tin-

sel, you can. You can take any movie you love and inject some of yourself into it. Despite the cardboard effects and obviously lifted dialogue, it can be a work that is both personal and endearing. It’s a very egalitarian ideal that Gondry poses in “Be Kind Rewind,” an ideal that our home movies are our own masterpieces, our own creations. As Mia Farrow toasts in the film, “Here’s to movies with heart and soul.”

A layered mess of narratives surrounds and complicates the good-natured story of two buddies willing to do anything to save their beloved video store.

CONCERT REVIEW

Liars With No Age

Liars Offer an Unrelenting Live Experience

By Dugan Hayes

Liars
Paradise Rock Club
Feb. 8, 2008

I don’t think anyone will ever understand Liars. I was fairly certain that I had a decent grasp on them for a while, but all that was blown to pieces this past summer when they released their self-titled fourth album. To call that album a disappointment would be generous; to call it a disaster might be more appropriate. Their 2006 album *Drum’s Not Dead* was by far my favorite record of the year, combining droning guitar anti-melodies, terrifying lyrics, and — most importantly — unrelenting, pounding drums layered upon more and more drums to yield one of the heaviest records I had ever heard. Most of the tracks eschew traditional rock song structures in favor of a more stream-of-consciousness approach that is just as unsettling as the music. And so when *Liars* came at me with a bunch of mediocre three-chord pop songs, I almost had to cry.

But one bad release wasn’t going to keep me from seeing one of the most intense live bands in existence. In addition to frequently changing musical styles, Liars are also notori-

ous for frequently changing members, so when the three flannel-clad instrumentalists took the stage, the audience didn’t know if they were the band or the roadies. There was no applause until Angus Andrew, the tall, scruffy, and certainly unmistakable Australian singer emerged. After Andrew settled into his chair (he recently suffered a serious back injury), the band launched into “Leather Prowler,” a restrained noise track from *Liars* that sounds insincere in its attempt to replicate the sound of 2004’s *They Were Wrong, So We Drowned*. The night didn’t look good as they went into “Houseclouds,” quite possibly the most regrettable song in the entire Liars catalog. Also from *Liars*, “Houseclouds” does everything it can to replicate Beck’s most recent output. It’s not a terrible pop song, but it certainly doesn’t belong on the same setlist as “We Fenced Other Houses with the Bones of Our Own.” At least the cheesy synth line was played on a reverb-soaked guitar, making the song slightly easier to swallow.

That said, “We Fenced Other Houses” was fantastic. The slow-burning cauldron sing-a-long built over the course of five hypnotic minutes until Andrew invoked the audience to complete the call-and-response: “Fly, fly, the

devil’s in your eye, shoot, shoot — WE’RE DOOMED, WE’RE DOOMED!” Meanwhile, “Be Quiet Mt. Heart Attack!,” normally a two-chord minor key drone piece that opens *Drum’s* by building up to the chaos that follows, was dramatically re-envisioned for live performance. The tempo was dropped to about half that of the original and guitarist Aaron Hemphill beautifully mixed the melody of “Drum Gets a Glimpse” into the drone.

After another few lackluster *Liars* numbers, the band began the centerpiece of the evening, “A Visit from Drum” blended with “Drum and the Uncomfortable Can.” While drummer Julian Gross seemed at least a little bored playing standard rock beats during “Clear Island” and “Freak Out,” he was clearly having the time of his life pounding away during these *Drum’s* tracks with Hemphill joining him on auxiliary percussion. The two were perfectly coordinated, nailing every tom, rim, and cymbal hit in the songs while throwing in plenty of surprises. “A Visit” was a perfect introduction to “Uncomfortable Can,” which is undoubtedly the most terrifying and exhilarating song I’ve ever heard performed. Gross and Hemphill pummeled the drums to bits while Andrew shouted out perfectly metered instructions for

killing someone and ditching the evidence, causing the audience to erupt for the first time. I swear I had nightmares that night about Andrew repeating “Use a tiny screw, leave it in the wrist” as the song ended.

“Plaster Casts of Everything,” one of the better songs from *Liars*, was the only song that got the entire audience moving. Andrew introduced it by saying, “We’re going to play this so loud that your moms are going to hear this back home.” For what it was — four minutes of balls-out rawk — it was definitely fun. Liars finished the set with their most beautiful song, the meditative ambient pop of “The Other Side of Mt. Heart Attack.” *Drum’s* is ostensibly a concept album featuring the characters Drum and Mt. Heart Attack, who represent (respectively) the primal and cerebral aspects of the band members’ personalities. So with a song as peaceful as “The Other Side,” it’s easy to get caught up in the background vocal “ahh-hhs,” the bells, the delicate guitar arpeggios, and Andrew’s promise that he “can always be found.” I certainly got caught up in the moment, but at the end Andrew cocked his head to one side, smiled an enormous grin, and gave a double thumbs-up just to show that he doesn’t take it too seriously.

MOVIE REVIEW ★★★ 1/2

High School With a Side of Prozac

‘Charlie Bartlett’ a Serious Look at Human Complexities

By Jillian Berry
SENIOR EDITOR

Charlie Bartlett
Directed by Jon Poll
Written by Gustin Nash
Starring: Anton Yelchin, Hope Davis, and Robert Downey, Jr.
Rated R
Now Playing

If you’ve seen the trailers for “Charlie Bartlett,” you’re probably expecting the movie to be a comedy in the style of “Juno,” as I expected when I went to a screening a few weeks ago. Instead, I found a rather serious drama with a few comedic elements. When I asked first time director Jon Poll about this, he explained that this is how the studio chose to market it. In fact, the original script was even darker and was made “warm and funnier with Gustin [Nash].”

“Charlie Bartlett” is the story of — you guessed it — Charlie Bartlett (Anton Yelchin), a wealthy teenager who is forced into public school after he is kicked out of yet another private school. An awkward and gangly teen who doesn’t really fit in (and as we all know,

all teenagers want to do is fit in), Charlie decides his ticket to popularity is to become the unofficial school psychologist, offering both therapy and medication for the unhappy student population. Meanwhile, he starts dating Susan (Kat Dennings), the daughter of the principal (Robert Downey, Jr.), who is suffering from his own demons. Obviously, the principal does not approve of Charlie medicating the students, which is one major plot line of the movie. But the real conflicts are more individual, as characters grapple with trying to fit in and realize they all far more complex than generic classifications. As I said, this is not a comedy.

Yelchin as the title character has an incredibly demanding role, and he does it justice. As Poll told me, “I always knew it was Anton . . . He was able to show great humor and kind of a wisdom beyond his chronological year.” Charlie Bartlett, at any given time, has to be awkward, confident, witty, depressed, and confused. Yelchin is able to portray this multifaceted personality with his confident walk, dry humor, intellectual speech, and wise eyes. And on top of all this, he doesn’t overpower the rest of the cast; he lets other actors shine,

and the movie is better for it. I can’t help but agree that no one else could have played Charlie Bartlett as well as Anton.

Just like Yelchin, the supporting actors were impressive. Downey knows just how powerful and intense silence can be as he portrays the alcoholic and unhappy principal. You feel his pain but know there is still a lively person in there somewhere who wants to do right by his students, and more importantly, his daughter. In addition, Hope Davis as Charlie’s haughty, fragile, confident, and perfectly attired mother steals every scene, though some of that might be due to the glue that seems plastered to her porcelain skin and bleach blonde hair. However, even more impressive than either of these characters is Tyler Hilton as the bully, Murphey Bivens. Murphey, despite his bullying, actually goes into “business” with Charlie when the latter starts offering his services as school psychiatrist. Throughout the movie, just like every other character, we see that he does not just fall into the box labeled “bully.” Instead, he shows a more sensitive side, without losing his tough exterior. And Hilton is so successful at becoming this character that when I looked him up on imdb.com, I could

not believe how incredibly good-looking he is in real life; he looks like a leading man for a romantic comedy, not a school bully. The director told me he chose this to show that “a bully doesn’t just appear.”

But really, it is the combination of Gustin Nash’s script and Poll’s direction that make this movie work. Nash wrote an intelligent screenplay that shows the complexities of teenagers and adults alike. And Poll created a high school that could be gritty and idealistic at times, but is perhaps the most like a real school I’ve ever seen in a movie. Without this realism, none of these characters could have been as complicated and lifelike as they were portrayed, and the movie would not have had the same resonance that I’ve felt from it weeks later. This is not say the movie is without flaws. It’s a little slow at times, and a little more humor would have been appreciated, especially considering the advertising. But once I got over the fact that the movie was not going to be a comedy, I enjoyed it for what it is — an honest look at high school, the complexities of human personalities, and the need for people to listen to each other without judgement.

Natya Presents DNA In Dance

MIT Natya, known for its Bharatha Natyam dancers, performed an Indian classical representation of the Science of DNA last Monday in Little Kresge.

(clockwise from right)

¶ Renuka Ramanathan '10 and Samiksha Nayak '10 use their bodies to represent DNA.

¶ Intricate costumes and jewelry like those worn by Amrita Saigal '10 were an important part of the performance.

¶ Performers conveyed the complexities of DNA through dance.

Photography by Kari Williams



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Endowment Pay-Out Rate Can Vary Due to Individual Accounts

Endowment, from Page 1

plus individual accounts within the endowment. She said those factors may cause the appropriate pay-out rate to fluctuate above and below five percent from year to year.

Vice President for Institute Affairs and Secretary of the Corporation Kirk D. Kolenbrander said "Five percent has been regarded as this magical line for what universi-

ties ought to spend." He said that although MIT has spent more than five percent per year for the past nine years, "It's crucial that universities maintain the capacity to manage their own resources."

Kolenbrander said, "The nation has come to accept as fact that a college education is of fundamental importance and an opportunity that should be broadly available. MIT must do its part to give the nation

confidence that this opportunity is well stewarded."

The request, which was sent as a letter and not a subpoena, is comprised of eleven multi-part questions that ask for specific data, ranging from investment manager bonuses to the percentage of the endowment invested in hedge funds, and explanations of policies and processes — such as setting tuition increases and putting restrictions on endowment spending.

As a letter to the Senate, MIT's response will be a public document. While metrics similar to the ones the Senate has requested are already publicly available, the Senate has asked for specific statistics that MIT must compute, according to Executive Director of Student Financial Services Elizabeth M. Hicks. For example, the letter asks for the percentage of students receiving university grants that are greater than or equal to 25, 50, 75, and 100 percent of tuition and fees, as opposed to the average grant that a student receives — a number that MIT already posts on its financial aid Web site.

Despite their concerns about the possibility of increased monitoring, both Kolenbrander and Hicks said they saw the Senate's request as an opportunity to communicate to Congress and the public that MIT is spending its endowment well and financing its students generously. "We view this as a great opportunity to tell our story," said Hicks. "We believe we are using the endowment to help students," she said, noting that the average debt for students who have taken loans has decreased from \$23,000 to \$15,000 over the past 10 years.

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Fisher Says Conan's Staff Was Energetic, Intelligent, And Fun

Fisher, from Page 1

record in the tape that aired on national television.)

A tinkerer by nature, Fisher spent most of his time at NBC with the technical staff. Fisher said he was impressed at the staff's multifarious talents, ranging from sewing to welding.

Fisher said that he first heard O'Brien's questions during the taping — none of their banter was rehearsed. He said that talking to Conan was just like having a normal conversation.

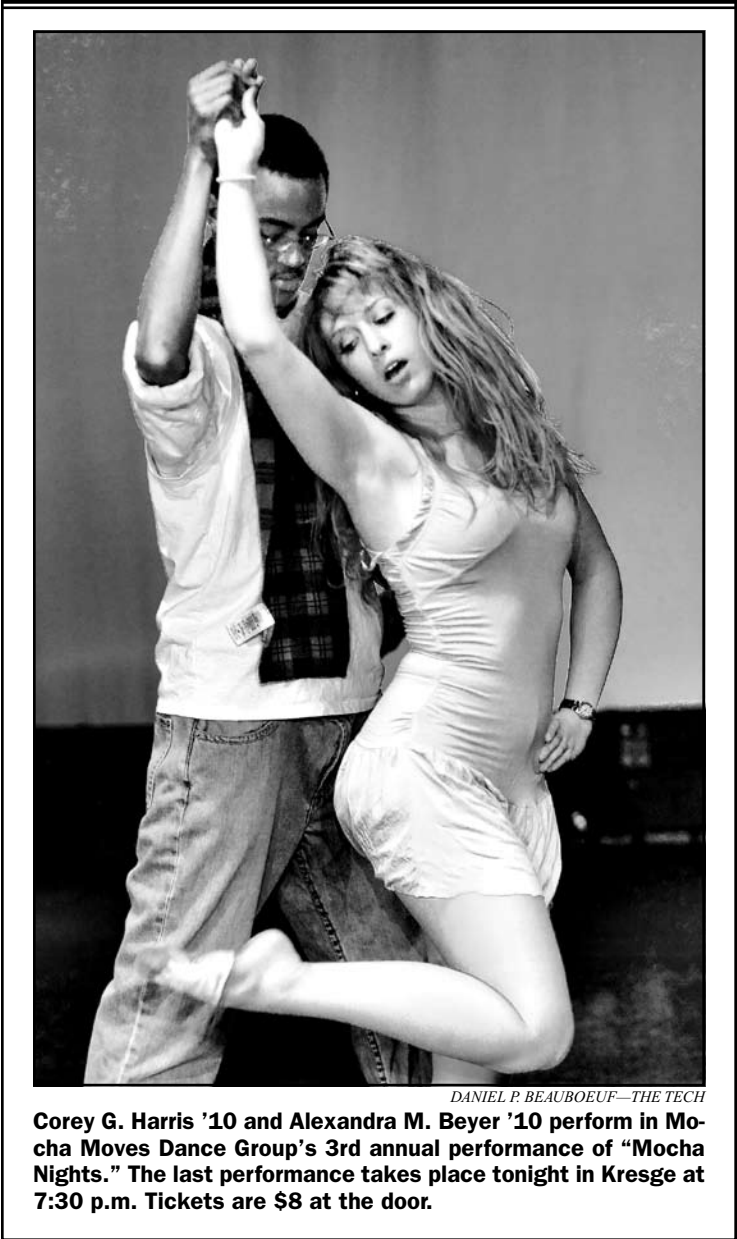
O'Brien's energy trickles down to his staff, Fisher said. "Organizations collectively assume the personality

of their leader," he said.

Fisher has gotten publicity before: he was interviewed about dark matter for a summer 2007 episode of the PBS show NOVA.

Aside from the ego boost of public exposure, Fisher said he enjoyed being interviewed on O'Brien's show because, as trivial as the goal was, he liked showing viewers how math and science can be applied to real life. To increase students' interest in math and science, "you have to show how it [math and science] applies to their life," he said.

Asked whether he would quit his day job to be on TV, Fisher replied confidently and with a slight chuckle, "I love my job."



DANIEL P. BEAUBOEUF—THE TECH

Corey G. Harris '10 and Alexandra M. Beyer '10 perform in Mocha Moves Dance Group's 3rd annual performance of "Mocha Nights." The last performance takes place tonight in Kresge at 7:30 p.m. Tickets are \$8 at the door.

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STEVE HOWLAND—THE TECH
Boston University Academy high school student Craig Broady (left) speaks with Kenneth F. Colucci, head of Strategic Relations at the MIT Lincoln Laboratory, on Tuesday at BUA. Students built robots as part of the For Inspiration and Recognition of Science and Technology (FIRST) Robotics Competition, which will be held Mar. 27-29 at Boston University.

Stanford University Expands Its Financial Aid Into Middle Class

By Jonathan D. Glater
THE NEW YORK TIMES
SAN FRANCISCO

Stanford University on Wednesday became the latest prominent university to expand financial aid well into the middle class. It announced that students from families earning less than \$100,000 a year would not be charged tuition.

Under the new system, which takes effect in the fall, families earning less than \$60,000 would not pay for room and board.

Tuition next year is \$36,030. Room and board add \$11,182.

The move follows announcements of expanded aid by Harvard, Yale and many others that provide tuition breaks to families with incomes well above average as tuition increases have become an issue in Congress.

Yale said in January that it would sharply increase financial aid for undergraduates, even for families with annual incomes up to \$200,000.

Karen Cooper, director of financial aid at Stanford, said the university would allot \$21 million to financial aid, raising the aid total to \$114 million. Cooper said the increase was the largest in the institution's history.

"We heard very clearly from our parents, especially parents that considered themselves middle income, that the amount that we expected from them was very difficult," Cooper said.

Students whose tuition, room and board are paid for will be expected to contribute about \$4,500 a year from summer earnings and on-campus work, she said. For students whose tuition is waived, the university will continue to judge family assets and circumstances in determining aid.

Lawmakers in Washington have criticized wealthy colleges for continuing to increase tuitions even as their endowments swell. The lawmakers have raised the possibility of requiring colleges, which benefit from tax exemptions on donations, to spend at least 5 percent of their endowments a year, as private foundations are required to do. The Stanford endowment exceeds \$17 billion.

"I hope we're seeing a trend and a shift in thinking," said Sen. Charles E. Grassley of Iowa, the senior Republican on the Senate Finance Committee, which has a central role in setting tax policy. "Spending a little more on students

won't break the bank for well-funded schools."

The Stanford endowment is the third largest of American universities.

Cooper said the Stanford board approved last summer increasing the share of endowment spent annually to 5.5 percent. She said the current average aid package, including loans and on-campus work, totals about \$32,000, meeting most of the cost of tuition.

If the wealthiest universities have been extending aid to families well into the reaches of the upper middle class, others have concentrated on reducing student debt by replacing loans with grants. Washington University in St. Louis on Wednesday became the latest in a parade of colleges replacing need-based loans with grants for students from families earning less than \$60,000. Princeton University announced such a step a decade ago.

Overall, the actions are reshaping the financial aid landscape for students entering college next year and could mean that in some cases, attending some of the nation's wealthiest and most elite private colleges could cost less than going to public universities.

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from page 6

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N I O A R S
E N D O C R I N O L O G I S T
T E O G L T U
T E S S D U R B E Y F I E I D
E U T O M Y
H I N T S W I T C H I N G
I N A D O N R S U
O F T E N H E N R Y V I I
N E G O E P N D
S O R R O W P R O T E G E E

Solution to Crossword
from page 6

S H O P T S A R G A N G S
L A V A E T C H O P E R A
U L A N N A M E S T I E S
G O L D E N Y E A R S G A S
A L I A S E I G H T Y
Z A G E S T P A P A
I S A A C H U R L M I F F
N I G H T T O R E M E M B E R
C A S E A M I S L A I T Y
A B B E S P A S E E
S T U D I O A R E N A
W O N G O O D O L D D A Y S
A T I L T G A O L A R E A
P A T I O L I M E P I L L
S L E E P E R S T T A P E

Solution to Sudoku
from page 7

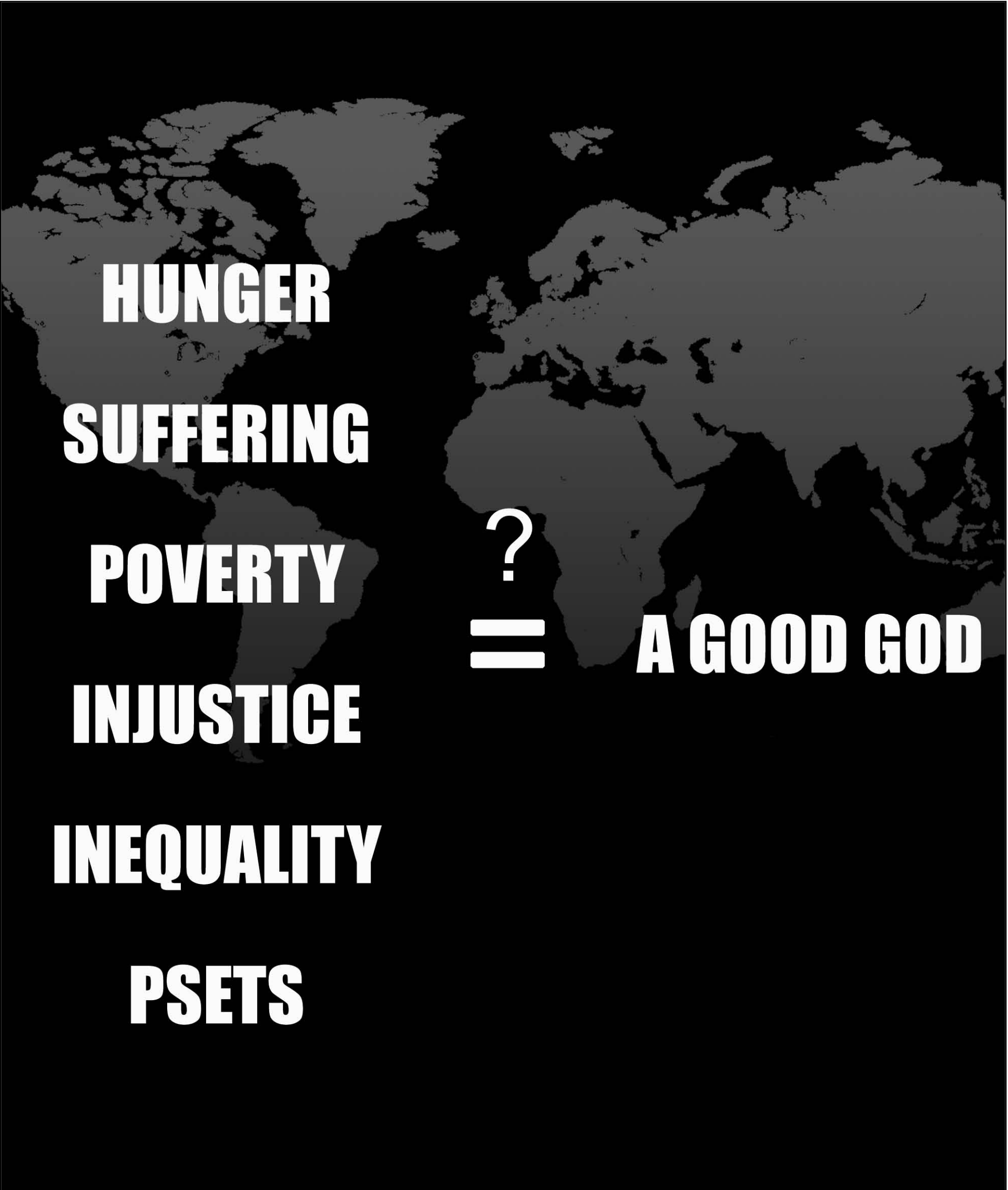
9 4 3 8 5 1 7 6 2
2 5 8 3 7 6 1 4 9
6 7 1 2 9 4 8 5 3
3 2 4 1 8 7 5 9 6
1 9 5 6 3 2 4 7 8
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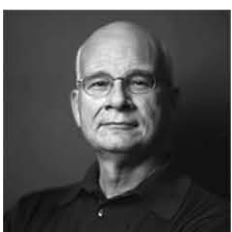


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The deadline for submissions is **Wednesday, February 27**. You can check out our last issue at web.mit.edu/murj/www.

Email murj-chiefs@mit.edu if you have any questions.

Grad Student P/D/F Could Be Approved With Sunset Clause

Grades, from Page 1

commented that there could be a sunset clause applied to the change, similar to how the Sophomore Exploratory option began as a five year experiment. After five years, the faculty would conduct a formal review to determine whether the P/D/F option was being appropriately used by graduate students, and then decide whether to adopt it formally. Bell also added that a five year re-

view could revisit some of the restrictions currently included in the proposal.

The motion was written in cooperation with Graduate Student Council members and Dean of Graduate Students Steven R. Lerman '72.

The full text of the motion is available online to people with MIT certificates at <https://web.mit.edu/dept/libdata/libdepts/d/archives/facmin/080220/080220.html>.

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Legendary Blackjack Analysts Alive But Still Widely Unknown

By Joseph P. Kahn
THE BOSTON GLOBE

CAMBRIDGE, MASS.

Blackjack has been on a hot streak lately, glamorized in best-selling books like Ben Mezrich's "Bringing Down the House" and its upcoming movie adaptation, "21," both chronicling the exploits of MIT teams that took the casinos for millions in the 1990s. How they beat the odds and made a small fortune in the process has become the stuff of pop-culture legend.

Until recently, though, the blackjack world had puzzled over one lingering mystery: Whatever happened to the legendary Four Horsemen, a group of young US Army researchers who published the first groundbreaking guide to winning blackjack more than 50 years ago?

None had gone on to become a professional gambler or recognized blackjack authority. Yet together they revolutionized the game with their 1956 analytical study, published in the Journal of the American Statistical Association, and their book "Playing Blackjack to Win," issued in 1957 and long out of print.

"Everybody sort of knew who we were, but nobody really knew," says James McDermott, sitting in his Cambridge apartment. "When I e-mailed a well-known blackjack expert on the 50th anniversary of our book, his response was, 'My God, you guys are still alive?'"

Not only are the Horsemen alive, albeit now in their late-70s, but they're taking a well-deserved victory lap, too. Last month, McDermott, a retired IBM executive, was inducted into the Blackjack Hall of Fame along with co-authors Roger Baldwin, Herbert Maisel, and Wilbert Cantey. Only Maisel failed to make the ceremony, held at a private club in Las Vegas and attended by scores of the game's elite players. McDermott, Baldwin, and Cantey signed autographs and received a standing ovation.

Meanwhile, their book is being reissued this summer with a new introduction by Edward O. Thorp. Thorp's 1962 bestseller "Beat the Dealer" drew heavily on the Horsemen's research and is credited with doing more to popularize the game than any other single work. Thorp and McDermott met in Los Angeles after the Las Vegas event, with Thorp inscribing McDermott's copy of "Beat the Dealer" thusly: "Thanks for your paper, which ultimately led to this book."

"I expected to find more of the green-eyeshade, Rat Pack types, but these guys all had highly technical backgrounds," McDermott says of his encounters with blackjack's best and brightest. He adds, "I was amazed when several said our book had changed their lives."

Crunching numbers

Shrouded by myth, the story of the Four Horsemen is a classic American tale of an oddball mix of academics and amateur card enthusiasts matching wits with the gambling establishment — yet never cashing in by beating the casinos at their own game.

They met in the early 1950s as Army enlistees at the Aberdeen Proving Ground in Maryland. McDermott and Baldwin had done graduate work in mathematics at Columbia University. Maisel, who later taught computer science at Georgetown University, was part of a team assigned to analyze such problems as weapons trajectory. Cantey, a sergeant, was the ranking officer among the foursome and its only African-American.

Baldwin and Cantey were card players as well, mostly of the penny-ante variety. During a game of dealer's choice, blackjack was called. Baldwin knew the game's basics — players try to draw hands totaling as close to 21 points as possible, without going over — but did not know that casinos forced dealers to

draw on 16 (or less) and hold on 17 (or more).

Baldwin thought it possible to lower the dealer's advantage (around 5 percent) by formulating a betting strategy based on precise mathematical modeling. Using desktop calculators, the four plotted the probabilities for thousands of hands, recalibrating the odds as each theoretical card was played. In doing so, they effectively created the first card-counting system, a forerunner of more sophisticated systems later used by the MIT teams and others.

After crunching numbers for 18 months — Thorp later borrowed their notebooks and validated their findings on an IBM 704 computer at MIT — Baldwin visited Vegas to study how casinos worked. Back at Aberdeen, he continued the modeling that led to the JASA paper in which, the authors wrote, a "player's strategic problems are analyzed with the objective of finding the strategy maximizing his mathematical expectation."

Their study created a buzz in gambling circles and a book deal for the authors. With a foreword by Charles Van Doren, the quiz-show star soon to be tainted by scandal, "Playing Blackjack" retailed for \$1.75. It included a pullout strategy chart with sections on "Draw or Stand," "Doubling Down," and "Splitting Pairs." What it did not include, recalls Maisel, was an authors' cover photo.

"We were a Protestant, a Catholic, a Jew, and a black man," Maisel says. "There was concern that putting a black face on the cover would hurt sales in the South, so the photo got pulled."

Unlike the JASA article, the book was written for nonstatisticians. Five thousand copies were printed, hardly enough to make the authors rich or famous, even though a copy recently went for \$300 on eBay.

"I think I made a total of \$28," says McDermott with a laugh.

Says Baldwin, "It was a slow-motion gold rush, trying to make money off this. But nobody made reserva-

tions for Las Vegas."

Why didn't they? "I calculated the house still had the advantage in the long run," Baldwin says. "Because I was the only one who'd set foot in a casino, my opinion was dominant — and incorrect. I didn't see any future in what's now called card counting."

Life goes on

While pleased to see the Horsemen get their due, Thorp, who now heads a California-based investment firm, says the four had neither the time nor the tools to develop their research into a comprehensive gaming strategy. "They didn't have a winning system, a way to cut the odds," Thorp notes. "They didn't realize the game was really beatable."

Maisel agrees. "In statistical terms, we still had a negative expectation," he says. "Unless you got lucky, you'd still lose in the long run."

Baldwin returned to grad school, eventually leaving mathematics to work in applied statistics and data processing. McDermott worked for the federal government before spending 32 years with IBM in market research and business planning. Cantey abandoned plans to become a preacher and pursued a career in government research.

The four stayed in touch, though, getting together once every decade or so. But until the Internet came along, says McDermott, nobody showed much interest in their whereabouts. For that matter, the four didn't pay much attention to the world of blackjack, either.

"As I said in my [Vegas] speech, my knowledge of blackjack ended with the first edition of 'Beat the Dealer,'" says Baldwin.

McDermott skimmed Mezrich's books about the MIT blackjack teams but thought they dwelled too much on characters who "cared more on the action than the game itself." In Vegas, where casinos take a vigilant (and aggressive) stance toward card counters, he didn't play even a single hand of blackjack.



ALEX H. CHAN—THE TECH

Jet Li, martial artist and international film star, appears as one of three keynote speakers at the China in Development Conference on Monday in the Wong Auditorium. This is the first China in Development Conference organized by the MIT-China Development Initiative.

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SPORTS

Game of the Week: Women's Ice Hockey Nets First Win of Year

By DAPER Staff

The women's ice hockey team registered its first win of the season last Friday with a 3-1 victory over Plymouth State University and then notched a 2-2 overtime tie with Castleton State College on Saturday. Defensewoman Stephanie V. Brenman '09 and forward Lauren A. Kazmierski '11 each tallied three points during the road trip as the team improved its record to 1-15-2 overall and 1-14-2 within the Eastern College Athletic Conference East division. Plymouth State fell to 0-17-1 (0-15-1) and Castleton State moved to 5-13-4 (4-9-4).

MIT opened the scoring against Plymouth State 2:20 into the game when Brenman connected on a pass

from Kazmierski for a power-play goal. Exactly 57 seconds later, Barbara J. McCarragher '10 set up Sara E. John '09 for what proved to be the game-winning goal. The game continued as a defensive struggle until the Panthers cut the deficit in half with a goal with 6:46 remaining in the second period. Both sides played well in the third period, notching nine shots each, before Brenman sealed the win with an empty-net goal with four seconds left to play. In net, Rachel A. Bowens-Rubin '11 collected 15 saves for the first win of her career.

Against Castleton State, the Kazmierski-Brenman connection returned as MIT took the lead 9:04 into the game. The Spartans dominated the second period though, out-shooting the Engineers 22-4 and scoring two goals to take the lead, 2-1. The

Engineers put pressure on Castleton State during the final period of regulation, and eventually broke through when Kazmierski set up John for the game-tying power-play goal with only 30 seconds left.

In overtime, Castleton State recorded a 10-2 advantage in shots but Bowens-Rubin denied every attempt, finishing the game with 46 saves.

After her great performances over the weekend, Bowens-Rubin was named the ECAC East Goalie of the Week. In all, she recorded 61 saves, a .953 save percentage, and a goals against average of 1.44. In addition, Kazmierski was selected for the ECAC Honor Roll.

The team wraps up their regular season with two games against Salve Regina University tonight at home and tomorrow away, both at 7 p.m.

Kopylov Earns Sabre Title as Fencing Wins New England Champ

By DAPER Staff

The men's and women's fencing teams won the New England Championship last weekend, the seventh time



ever that both teams have won the title during the same year. The men's squad earned its 24th title while the women tallied their 14th crown. A margin of three victories over Boston College was just enough to help the men's team secure its first championship since 2005-06. Igor Kopylov '09 (10-2) earned his third straight sabre title, becoming the first person to achieve this milestone since Alan Williams '85 won three consecutive epee crowns from 1982-85. The Engineers tied Boston College for first place in the sabre competition as Maximilian L. Brand '11 (9-3) earned sixth and Rangarajan D. Nadadur '10 (10-1) finished tenth in the individual rankings.

The foil team posted a 29-7 mark en route to a second-place finish. Spencer R. Sugimoto '08 (9-3) placed second, equaling his best finish since his rookie season. Benjamin T. Switala '09 and Richard C. LaGrandier '11 captured the 10th and 11th slots with identical records of 10-2.

Gabriel A. Chan '09 emerged from the epee "B" pool to record a fifth-place finish while MIT captured third as a team. Matt L. Gethers '09

captured seventh behind a 10-2 outing while Jeremy S. Hurwitz '08 just missed the cut as he finished third with a 10-2 ledger in the "C" pool.

The women's team claimed its first New England Championship since 2004-05 after back-to-back runner-up finishes. The team edged out Wellesley College by six victories in the final team standings.

Cordelia S. Link '10 finished second in the individual rankings of the top foil pool with a 12-0 showing, powering the Engineers to a first-place tie with Wellesley. Lindley C. Graham '10 compiled a mark of 10-3 in the "B" pool while placing seventh overall. In the "C" pool, Chun Li '08 went 11-2 to finish twelfth among all competitors.

The sabre squad placed second with a record of 30-8. Yuhsin Chen '08 registered a career-best fourth-place finish with a record of 11-2. In her first appearance, Elena A. Tatarchenko '11 ranked seventh after emerging from the "C" pool with a 10-2 total. Laura A. Evans '10 bolstered the Engineers' efforts with a 12th-place finish and a 9-4 record in the "B" pool.

The epee team captured fourth place, anchored by Stephanie H. Shin '10. Shin went 10-3 and finished ninth in the individual standings. Zhenya Gu '08 (9-4) finished twelfth in the "C" pool, and Joanna W. Tong '08 (7-6) rounded out the contingent in the "B" pool.

SCOREBOARD

Men's Basketball	
Wednesday, Feb. 20, 2008	
Clark College (11-12, 6-5 NEWMAC ¹)	58
MIT (12-13, 3-9)	56

Men's Ice Hockey	
Wednesday, Feb. 20, 2008	
Boston College (13-2-1)	4
MIT (12-4-1)	2

Women's Basketball	
Wednesday, Feb. 20, 2008	
MIT (12-12, 4-8)	63
Wheaton College (18-6, 11-1)	68

Men's Volleyball	
Tuesday, Feb. 19, 2008	
Emmanuel College (8-8, 3-0 NECVA NE ²)	1
MIT (12-6, 6-2)	3

¹New England Women's and Men's Athletic Conference
²North East Collegiate Volleyball Association New England Division

UPCOMING HOME EVENTS

Friday, Feb. 22, 2008
Women's Ice Hockey vs. Salve Regina University
7 p.m., Johnson Ice Arena

Saturday, Feb. 23, 2008
Pistol Alumni Match 8 a.m., duPont Athletic Center
Men's Volleyball vs. New York University 2 p.m., Rockwell Cage
Men's Gymnastics vs. William and Mary College 2 p.m., duPont Gymnasium
Men's Tennis vs. Vassar College 4 p.m., duPont Tennis Courts



Forward Nicholas R. LaBounty '09 crashes the net against Boston College in Johnson Ice Rink on Wednesday. LaBounty's second period goal gave them a brief 2-1 lead, but MIT went on to lose 4-2.



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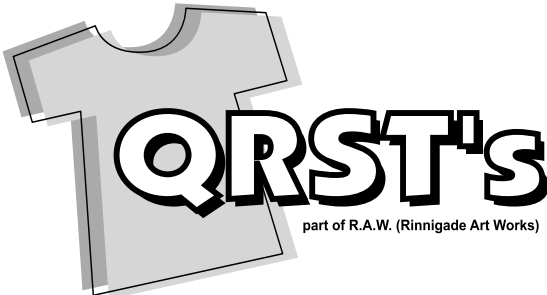
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