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The Tech

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Volume 134, Number 22

Tuesday, April 29, 2014

WEATHER, p. 2

TUE: 47°F | 41°F Mostly cloudy

WED: 46°F | 42°F Overcast

THU: 60°F | 50°F Rain

Pair raises $500K, preparing to rain bitcoins on undergrads

$100 per student hoped to spur innovation at MIT

By Austin Hess and Leon Lin
EDITORS

Donors have committed to giving $100 in bitcoins to each of MIT's about 4,500 undergraduates this fall.

Jeremy L. Rubin '16 and Daniel B. Elitzer, a first-year Sloan MBA student, are spearheading the project, which they hope will sow the seeds of an innovative bitcoin "ecosystem" at MIT.

Rubin and Elitzer said they've secured more than $500,000 in commitments from about 25 donors. Half of the money will come from Alexander Morcos '97, who co-founded Hudson River Trading, a high-frequency trading firm based in New York.

Rubin and Elitzer met with MIT administrators before announcing their plans. An MIT spokesman wrote in an email that "[t]he administration wishes the project's leaders and participants all success."

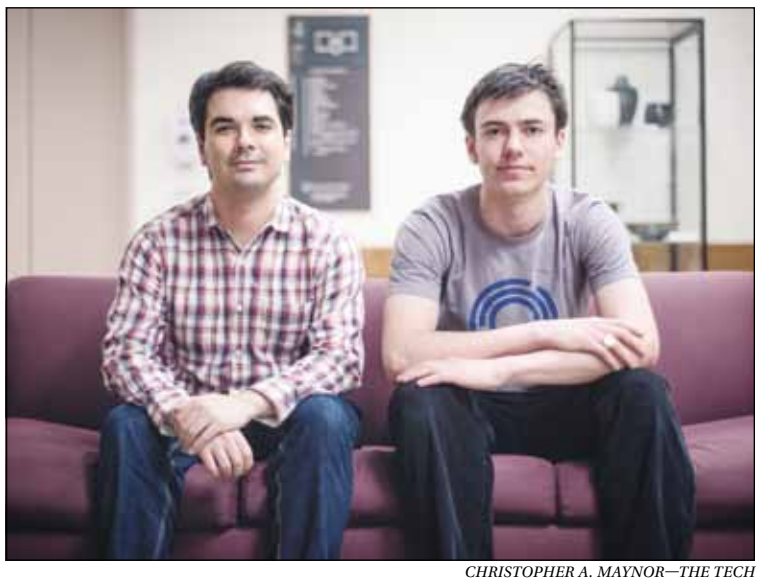
The initiative's press release lists numerous MIT faculty as supporters of the project.

Professor Simon Johnson, formerly the chief economist at the International Monetary Fund, said that he was "all in favor" of encouraging innovation in finance and that Rubin and Elitzer's experiment "could be a positive" for perceptions of bitcoin, noting that the cryptocurrency's credibility has become a bigger concern this year after the bankruptcy of Mt. Gox, once the largest bitcoin exchange.

Bitcoin is a digital payment system that uses a peer-to-peer network to facilitate payments made in units called bitcoins. Members of the network can use an open-source cryptographic protocol to verify payments in return for transaction fees and new bitcoins in a process called mining.

One bitcoin could be bought for about $443 at press time, according to Coinbase, a bitcoin wallet service. The value of one bitcoin rose from less than $15 in January 2013 to a peak of over $1,100 in December.

Rubin and Elitzer's announcement months in advance is timed to give local businesses a chance to begin accepting bitcoin and to give students and researchers a chance to develop bitcoin-related applications.



CHRISTOPHER A. MAYNOR—THE TECH

Daniel B. Elitzer G (left) and Jeremy L. Rubin '16 (right) want to give every MIT undergraduate $100 in bitcoin.

"What I'm hoping is that infrastructure gets sufficiently built around MIT that bitcoin actually becomes a useful commodity to have," Rubin said.

Rubin said: "Everybody has access to the Internet, right — so you want to launch a webapp? Everybody can do that. You want to launch a bitcoin or cryptocurrency app? That's a little bit harder ... you can't test it in your immediate friend

Bitcoin, Page 9

6.00 to be replaced by new 6.0001 and 6.0002

Classes will be taught by Professor Guttag, change to take effect in upcoming fall term

By Patricia Z. Dominguez
STAFF REPORTER

Two new classes will be introduced during the 2014-2015 academic year that will replace 6.00 (Introduction to Computer Science and Programming) and cover its entire curriculum. 6.00 is currently required for Course 9 and Course 20 majors.

6.0001 and 6.0002 are meant to cover the same material as 6.00 in a more flexible and accessible way for students with varying amounts of programming experience, according to Professor John V. Guttag, who developed the new classes.

6.0001 and 6.0002 are both six-credit half-semester classes, and taking both will count as taking one REST subject.

6.0001 is Introduction to Computer Science Programming in Python, which is designed to help students with little or no programming experience develop programming skills and use computational techniques to solve problems. 6.0002 is Introduction to Computational Thinking and Data Science, which builds on the concepts learned in 6.0001 by introducing more complicated topics in programming and computational thinking.

Guttag, who also developed 6.00 in 2005, had been considering making this change for over a year. The primary goal of splitting 6.00 into two classes, he said in an interview with *The Tech*, was to make it more accessible for freshmen in their first fall and spring semesters. The freshman credit limit is 54 credits in the fall and 57 credits in the spring, which prevents most freshmen from taking more than four 12-unit classes in one semester.

The credit limit also makes it difficult for freshmen to explore classes in the specific fields that they are interested in, Guttag said, particularly in engineering and computer science. By turning an introductory computer science course into two 6-unit classes, it is now possible for freshmen to take one half of the course each semester of their first year at

6.0001, Page 14

Five MIT students win more than a quarter million dollars each through Hertz Fellowship

On April 17, the Fannie and John Hertz Foundation announced the fifteen 2014 Hertz Fellows in the applied physical, biological, and engineering sciences. Of the fifteen Hertz Fellowship recipients, five are MIT students: Ian McKay '12, Elizabeth Y. Qian '14, Andrew J. Rzeznik G, Katharine Schutz '14, and Asmamaw T. Wassie G. The fifteen fellows were selected from a pool of nearly 800 applicants.

According to the press release, the fellowship is considered to be the nation's most generous graduate support. Fellows are selected for their "intellect, their ingenuity and their potential to bring meaningful improvement to society."

McKay is a chemical engineer whose work focuses on energy storage and electrocatalysis, while Qian is an aerospace engineer who studies engineering computation. She will be conducting research at RWTH Aachen in Germany before beginning her graduate studies at MIT.

Rzeznik is a PhD student in mathematics at MIT who focuses his research on mathematically modeling the troposphere by combining applied mathematics and fluid mechanics.

Schutz, who majored in physics, investigated cosmic inflation and dark matter phenomenology as an undergraduate at MIT. Wassie majored in biological engineering as an undergraduate and has worked on helping create new technologies for controlling and analyzing brain activity.

Each Hertz Fellow is awarded a stipend and full tuition support for up to five years of graduate study. According to a press release, the Fellowship will give each recipient complete financial independence to pursue their individual scientific work or research.

—Patricia Z. Dominguez

SHERRY REN—THE TECH

The big dome was lit in green this past week to highlight Hepatitis B Awareness Week at MIT. The virus is a leading cause of liver and cancer but is preventable and treatable. Screenings are covered for all students at MIT Medical.

IN SHORT

Where were you during the 2013 Boston Marathon bombings? "Our Marathon: The Boston Bombing Digital Archive" will be at MIT today and tomorrow to collect stories from the MIT community. Our Marathon will provide an overview of the project today from 12:15 p.m. to 12:45 p.m. in 32-144. Stop by the Bush Room (10-105) tomorrow from 11 a.m. to 3 p.m. to share your story.

Science on Saturday will be holding a free show next Saturday, May 10 from 10 a.m. to 11 a.m. in Kresge Auditorium. MIT's Materials Science and Engineering Department will be conducting fun demonstrations on stage. The show is open to all elementary, middle, and high school students, as well as their parents and teachers. Seating will be on a first-come, first-served basis.

Pre-registration for the fall semester opens this Thursday, May 1. Students must pre-register for a CI-H/HW subject by June 16 if they want prioritized scheduling.

Send news information and tips to *news@tech.mit.edu*.

A HIGH SCORE FOR HIGHLAND
Our writer says Highland Kitchen is one of the best in Boston.
ARTS, p. 11

PURGATORY AT MIT
Through the eyes of an MIT graduate student's spouse. **CAMPUS LIFE, p. 10**

A WIN FOR REAL MADRID
The four Champions League semifinalists will face off again. **SPORTS, p. 16**

JOAN JONAS INVITED TO VENICE
A prominent artist and MIT professor has been chosen to represent the U.S.
ARTS, p. 11

Q.E.D.: DISCOVERY IN THE TERMINAL
There's more than meets the eye in the settings menu.
FUN, p. 5

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Egypt sentences more than 680 to death

MINYA, Egypt — An Egyptian court here on Monday sentenced to death the spiritual leader of the Muslim Brotherhood and more than 680 other people after a swift mass trial on charges of inciting or committing acts of violence that led to the destruction of a police station and the killing of an officer.

Many of those punished, including Mohamed Badie, the spiritual leader of the Muslim Brotherhood, were sentenced to death for lesser crimes, including committing or inciting acts of violence. The verdict, after a trial lasting only a few minutes, came just a month after the same judge drew condemnation from around the world for sentencing 529 other people to death in a similarly lightning-fast mass trial.

The judge, Sayedd Yousef, affirmed the death sentences Monday of about 40 of the defendants in that mass trial and commuted the others to life in prison, which is understood here to mean 25 years. The verdicts Monday and last month are subject to appeal. Both sets of trials involved sentences in absentia for many defendants who are still at large, and if they are arrested all will receive a retrial.

The speed and scale of the latest batch of sentences, in defiance of international outrage at the earlier one, appeared to underscore the judiciary's energetic support for the new military-led government's sweeping crackdown on its political opponents, including Islamist supporters of the ousted President Mohammed Morsi of the Muslim Brotherhood as well as more liberal groups.

—David D. Kirkpatrick, The New York Times

Recovery has created far more low-wage jobs than better-paid ones

WASHINGTON — The deep recession wiped out primarily high-wage and middle-wage jobs. Yet the strongest employment growth during the sluggish recovery has been in low-wage work, at places like strip malls and fast-food restaurants.

In essence, the poor economy has replaced good jobs with bad ones. That is the conclusion of a new report from the National Employment Law Project, a research and advocacy group, analyzing employment trends four years into the recovery.

"Fast food is driving the bulk of the job growth at the low end — the job gains there are absolutely phenomenal," said Michael Evangelist, the report's author. "If this is the reality — if these jobs are here to stay and are going to be making up a considerable part of the economy — the question is, how do we make them better?"

The report shows that total employment has finally surpassed its pre-recession level. But job losses and gains have been skewed. Higher-wage industries — like accounting and legal work — shed 3.6 million positions during the recession and have added only 2.6 million positions during the recovery. But lower-wage industries lost 2 million jobs, then added 3.8 million.

With 10.5 million Americans still looking for work — the unemployment rate is 6.7 percent — employers feel no pressure to raise wages for those who are working. As a result, the average household's take-home pay has declined through the recession and the recovery to $51,017 in 2012 from $55,627 in 2007, after adjusting for inflation.

With joblessness high and job gains concentrated in low-wage industries, hundreds of thousands of Americans have accepted positions that pay less than they used to make, in some cases, sliding out of the middle class and into the ranks of the working poor.

Economists worry that even a stronger recovery might not bring back jobs in traditionally middle-class occupations eroded by mechanization and offshoring. The U.S. workforce might become yet more "polarized," with positions easier to find at the high and low ends than in the middle.

—Annie Lowrey, The New York Times

Syria announces Assad's bid for re-election as war rages

By Ben Hubbard
THE NEW YORK TIMES

BEIRUT — The Syrian government announced Monday that President Bashar Assad will compete in a presidential election scheduled for June 3 that is widely seen as an attempt to enhance his perceived legitimacy despite a raging civil war that has pushed his government out of much of the country and displaced millions of citizens.

Although recent legal changes mean that Assad will run opposed for the first time since he took over from his father, Hafez Assad, in 2000, his victory is considered a foregone conclusion, and most expect it will do nothing to stop the war.

The Syrian election comes amid a series of votes across the Arab world that — despite purporting to show democracy in action — indicate how little the protest movements known collectively as the Arab Spring have affected the region's traditional power structures.

Egypt has engaged in a wide-ranging crackdown on dissent in the run-up to a vote that will almost surely name Abdel-Fattah el-Sissi, the former defense minister, president. Algeria on Monday witnessed the swearing in of its ailing, septuagenarian president, Abdelaziz Bouteflika. In Syria, election preparations have highlighted the yawning gaps between the supporters of Assad's government, who say he is fighting a necessary war against foreign-backed extremists, and the opposition, which considers him a brutal dictator who must be overthrown.

The news barely made a ripple in opposition areas.

"What do you think of this criminal and killer who wants to dress up in a new outfit and say, 'I'm the legitimate president?'" said Tamam Hazim, an anti-government activist reached through Skype in Aleppo, where he said his home had recently been destroyed by a bomb dropped from a government helicopter.

Speaking of Assad, he cited an Arabic proverb: "He has destroyed it and is sitting on the ruins."

The lack of reliable polling inside the country makes it impossible to gauge how much support Assad has, although many Syrians have stuck by him, seeing him as a symbol of the nation or fearing that an opposition victory could lead to Islamist rule. The Syrian National Coalition, the group of Syrian exiles that purports to lead the uprising, has failed to gather significant support inside the country and has called the vote a farce.

The Syrian government has given no indication of how it will gather votes from the millions of Syrians who have sought refuge from the violence in neighboring countries, other than saying Syrian expatriates can vote in their embassies. Nor has it explained how it will organize voting in areas controlled by armed rebel groups. Instead, the state news media has focused on the strict formality of the process.

The other six people who have announced their intention to run include businessmen, former ministers, members of Parliament and one woman. None have made any public statements about the policies they would pursue nor implied that they would lead the country better than Assad.

U.S. announces more sanctions against Russia over Ukraine

By Mark Landler and Peter Baker
THE NEW YORK TIMES

WASHINGTON — The United States on Monday imposed additional sanctions against Russian government officials and companies deemed close to President Vladimir Putin, accusing Moscow of failing to live up to its agreement to defuse the crisis in Ukraine.

The Obama administration ordered travel bans and asset freezes for seven Russian officials, including two said to be in Putin's inner circle, and froze assets for 17 companies. Thirteen Russian companies will also face additional restrictions as the government will cut off the export or re-export of U.S.-made products to them.

Additionally, the State and Commerce departments announced a new policy to deny export license applications for high-technology items that could contribute to Russia's military capabilities. The two departments will revoke existing export licenses along those lines, a White House statement read. The European Union plans to follow with sanctions on 15 Russians, officials said. Among those targeted Monday was Igor I. Sechin, president of the state-owned Rosneft oil company and a longtime Putin adviser. Although administration officials said over the weekend that they also expected Alexei B. Miller, the head of the energy giant Gazprom, to possibly be targeted, Obama ultimately chose a list that did not include him.

Others who face sanctions include Dmitry N. Kozak, a deputy prime minister; Vyacheslav V. Volodin, a deputy chief of staff to Putin; and Alexei Pushkov, the chairman of the international affairs committee of the State Duma, the lower house of Parliament.

The companies targeted included several banks, including Sobinbank, and energy companies like the Stroytransgaz Group and various related entities. In imposing sanctions on Sechin, the administration has targeted a top partner of Exxon Mobil, which has multiple joint ventures with Rosneft. It is not known if Sechin has any U.S. assets to freeze, but he will no longer be permitted into the country to consult with his Exxon Mobil partners. Exxon Mobil lawyers have been studying the possible ramifications in anticipation, but a company spokesman said Monday that it had no comment.

The actions came shortly after President Barack Obama, traveling in Asia, declared that Russia was continuing to bully and threaten Ukraine and would pay a price. The fact that the announcement was made on the last stop of his weeklong Asia trip underscored the sense of urgency about fears that Russia was destabilizing eastern Ukraine.

WEATHER

Severe weather threatens southeastern U.S., cool and cloudy in Boston

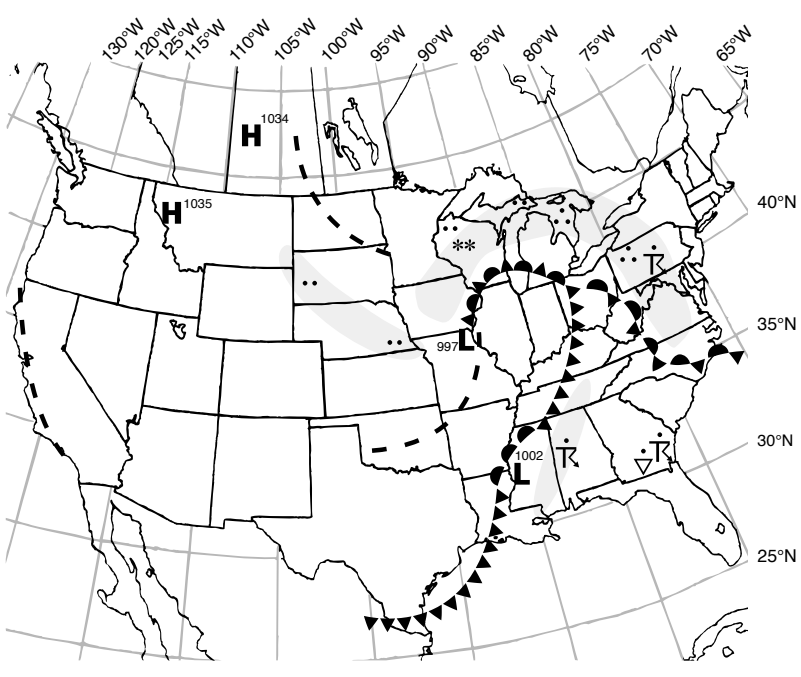
By Casey Hilgenbrink
STAFF METEOROLOGIST

It's been an active few days across the Southern Great Plains and the Southeast as a multi-day, multi-state severe weather outbreak affected the region. On Sunday, preliminary storm reports indicated that 32 tornadoes touched down from Iowa and Nebraska to Arkansas, Mississippi and Louisiana, killing at least 18 people in three states. At the time of this writing Thursday afternoon, the severe threat persisted as tornado-warned storms continued to affect Mississippi and Alabama. Unfortunately, this severe threat will stick around for at least today and possibly tomorrow for parts of the southeastern U.S.

Here in Boston, we won't have any severe weather to worry about, although the same large-scale system associated with this outbreak will likely bring rain to our region tomorrow night into Thursday. Today, the high temperature will top out around 47°F (8°C) thanks to breezy northeasterly winds and mostly cloudy skies. Below-average temperatures continue tomorrow, with a high of only 46°F (8°C). Showers are likely to begin popping up tomorrow afternoon/evening, with heavier rain settling in overnight. This rain will likely continue for most of the day Thursday, which should be warmer with a high in the upper 50s°/low 60s°F. Thankfully, things should dry out Friday and our patience will be rewarded with partly sunny skies and a high temperature in the mid 60s°F.

Extended Forecast

Today: Mostly cloudy, with a high of 47°F (8°C). Northeasterly winds at 15-20 mph.
Tonight: Overcast, with a low of 41°F (5°C). Winds from the east at 10-15 mph.
Tomorrow: Overcast, with a high of 46°F (8°C). Easterly winds at 10-15 mph, with an occasional gust up to 20 mph. Increasing chance of showers in the afternoon/evening with heavier rain likely overnight.
Thursday: Overcast, with a high in the upper 50s°F/low 60s°F (around 15°C). Rain in the morning and showers likely through the afternoon.
Friday: Partly sunny, with a high in the mid 60s°F (around 18°C).



Situation for Noon Eastern Time, Tuesday, April 29, 2014

Weather Systems	Weather Fronts	Precipitation Symbols			Other Symbols
			Snow	Rain	
H High Pressure	Trough	Showers	* ▽	• ▽	Fog
L Low Pressure	Warm Front	Light	*	•	Thunderstorm
§ Hurricane	Cold Front	Moderate	**	••	Haze
	Stationary Front	Heavy	***	•••	

Compiled by MIT Meteorology Staff and *The Tech*

Same court weighs different effects of similar abortion laws

By Campbell Robertson
THE NEW YORK TIMES

NEW ORLEANS — For the second time this year, a federal appeals panel here heard arguments about the constitutionality of a new state law governing abortion. But despite much in common between the two laws — one in Texas, and the other, the subject of Monday's hearing, in Mississippi — their effects would differ substantially, raising the possibility that the same court weighing similar laws might arrive at different conclusions.

The Mississippi law, like the Texas law, requires doctors performing abortions to have admitting privileges at local hospitals. Unlike the one in Texas, however, the law in Mississippi would have the effect of shutting down the state's sole abortion clinic.

Since the Mississippi law was passed in 2012, the two doctors who perform the vast majority of the abortions at the clinic, the Jackson Women's Health Organization, were unable to obtain local admitting privileges at any of the hospitals in the area.

The clinic's license was due to be revoked last April, but at the last minute a federal judge blocked the law. The state took the case to the 5th U.S. Circuit Court of Appeals.

In March, as the Mississippi case was waiting to be heard, a three-judge panel of the 5th Circuit upheld the Texas law. Though some clinics in Texas might close under the new regulations, the judges ruled, others would remain open and available.

"An increase of travel of less than 150 miles for some women is not an undue burden," Judge Edith H. Jones wrote.

But the victory for Texas did not guarantee an easy time Monday for Paul E. Barnes of the Mississippi attorney general's office.

"Seems to me you've got a steep hill to climb," Judge E. Grady Jolly said at the outset.

Barnes argued that Mississippi is "surrounded by major metropolitan areas where abortion clinics are available," and that women seeking abortions could always go to clinics in Alabama or Louisiana.

But judges on the panel pointed out that the crossing of state lines involved larger matters than distance.

"The state of Mississippi cannot shift its constitutional obligations onto other states," Jolly said.

He also pointed out that Alabama has passed, and Louisiana is considering, similar laws that could result in the shuttering of clinics, thus hurting the state's argument about access.

Returning to a main contention of the state — that the law was devised to ensure the health of women, not to prohibit abortion — Barnes said "each state has the same right to protect its citizens," and what was allowed in Texas should be allowed in Mississippi, too.

While the Texas ruling may have seemed to bode poorly for her case, Julie Rikelman, a lawyer with the Center for Reproductive Rights, was met with fewer skeptical questions by the panel. She even cited a passage from the Texas ruling in her argument: that the challenge there would have succeeded, "if the effect of the law substantially burdened women's access to abortions in Texas."

String of deadly storms hits across Midwest and South

By Alan Blinder and Ashley Southall
THE NEW YORK TIMES

ATLANTA — Residents of Arkansas began assessing the damage Monday after a night of deadly storms left at least 17 people dead across the central and southern United States.

At least 16 of the dead were in Arkansas, the state's Department of Emergency Management reported early Monday. At least 10 deaths were reported in Faulkner County, north of Little Rock; five in Pulaski County, which includes Little Rock; and one in White County.

Another person was killed when a tornado struck Quapaw, Okla., a town about 100 miles northeast of Tulsa.

According to reports, a tornado touched down about 7 p.m. on Sunday about 10 miles west of Little Rock and carved a deadly path through several towns, including Vilonia, Ark., as it moved northeast.

Although there was some speculation on Sunday that a single tornado, reaching a size of perhaps a half-mile wide as it streaked across the state for more than an hour, was responsible for much of the carnage, the National Weather Service was reluctant to endorse that theory.

The tornado was the largest of several that swept across the central and southern United States. Damage from high winds, heavy rain and hail was reported from Texas to Nebraska and Iowa on Sunday night.

One of the hardest-hit towns was Vilonia, where a tornado about three years ago left at least 10 dead.

Among the ruins in Vilonia on Monday was a $14 million intermediate school that was set to open this fall.

"There's just really nothing there anymore," the Vilonia schools superintendent, Frank Mitchell, told AP. "We're probably going to have to start all over again."

President Barack Obama, who was visiting the Philippines, promised storm victims that the federal government would help in the recovery.

Images on local television and social media showed mangled trees and splintered houses, and a segment of Interstate 40 near Mayflower, Ark., was closed. Entergy Arkansas reported on Twitter that about 16,000 customers were without power on Monday, down from 35,000 Sunday night.

Matt DeCample, a spokesman for Gov. Mike Beebe, said in an interview late on Sunday that there were "widespread injuries."

He said the governor was planning to visit the damaged areas on Monday.

Officials warned that the system was likely to spawn more storms on Monday.

The National Weather Service predicted "widespread severe storms, including strong tornadoes" for Alabama, Kentucky, Louisiana, Mississippi and Tennessee.

French company Sanofi says dengue vaccine succeeds in late-stage trial

By Andrew Pollack
THE NEW YORK TIMES

LOS ANGELES — The French pharmaceutical company Sanofi said Monday that its experimental vaccine for dengue fever had succeeded in its first late-stage clinical trial. The results could help pave the way for introduction of the first vaccine to prevent a disease that afflicts as many as 100 million people a year.

Sanofi said the vaccine reduced the incidence of dengue fever by 56 percent in a trial involving more than 10,000 children in Southeast Asia. It said that was a big enough reduction to achieve the primary goal of the study. A news release announcing the results did not contain much more detail. The company said it was still analyzing the data and would present more details at a medical conference and in a peer-reviewed publication later this year.

"This achievement is the result of more than 20 years of work in the field of dengue, collaborating with investigators, volunteers, authorities, scientific experts and international organizations," Olivier Charmeil, chief executive of Sanofi Pasteur, the vaccine arm of the company, said in a statement.

Dengue fever is caused by a virus transmitted by mosquitoes and affects people mainly in tropical and subtropical areas. The disease, also known as breakbone fever, can cause severe fever and intense joint and muscle pain. Serious cases can cause hemorrhagic fever, which is marked by bleeding and shock. These can be fatal, especially to children.

The vaccine is one of the most important products in Sanofi's pipeline. Sanofi has been trying to compensate for the loss of patent protection and the subsequent start of generic competition to some of its big-selling drugs, particularly the anti-coagulant Plavix.

Sanofi's effort is being closely watched because it is considerably ahead of others in developing a vaccine. And such a vaccine is needed because there is no specific treatment for dengue and no preventive approach other than controlling the mosquitoes that transmit the disease.

The results of the late-stage, or Phase 3, trial, follow disappointing results announced in 2012 for a smaller Phase 2, or mid-stage study involving 4,000 children in Thailand. In that study, the vaccine reduced dengue cases by only 30 percent, far worse than expected.

The company, however, called those results a success. It said that the vaccine had failed to protect against only one of the four subtypes of the virus. Yet that subtype was the most prevalent one in that region during the time of the study.

It is not clear yet how the 56 percent reduction in the new trial will be regarded by outside experts. But even a 50 percent reduction could save many lives.

Pfizer proposes a marriage and a move to Britain, easing taxes

Pfizer, the maker of best-selling drugs like Lipitor and Viagra and a symbol of business prowess in the United States for more than a century, no longer wants to be an American company.

On Monday, Pfizer proposed a $99 billion acquisition of its British rival AstraZeneca that would allow it to reincorporate in Britain. Doing so would allow Pfizer to escape the U.S. corporate tax rate and tap into a mountain of cash trapped overseas, saving it billions of dollars each year and making the company more competitive with other global drugmakers.

A deal — which would be the biggest in the drug industry in more than a decade — may ultimately not be done. AstraZeneca said Monday that it had rebuffed Pfizer, after first turning down the company in January. Nonetheless, the pursuit by Pfizer, founded in a redbrick building in Brooklyn, N.Y., in 1849, has made it clear that the company wishes to effectively renounce its U.S. citizenship.

Pfizer points out that it would retain its corporate headquarters here and remain listed on the New York Stock Exchange. It also says that the main rationale for the deal is broadening its portfolio of drugs, and saving money through combined operations with AstraZeneca.

Still, a deal would allow it to follow dozens of other large U.S. companies that have reincorporated abroad through acquiring foreign businesses. They have been drawn to countries like Ireland and the Netherlands that have lower corporate rates, as well as by the ability to spend their overseas cash without being highly taxed.

At least 50 U.S. companies have done mergers that allowed them to reincorporate in another country — nearly half of those deals have taken place in the past two years.

But Pfizer is now the largest and best-known of them to try to expatriate. There are several benefits of being effectively a British company. Pfizer pays an effective tax rate of 27 percent. Though it did not specify what the new rate might be, the British corporate tax rate is 21 percent and will soon fall to 20 percent.

Analysts at Barclays estimated that for each percentage point less Pfizer paid in taxes, it would save about $200 million a year by reincorporating. People briefed on Pfizer's discussions said that figure could be substantially higher. That means that Pfizer would be saving at least $1 billion a year in taxes alone.

—David Gelles and Michael J. De La Merced, The New York Times

British publicist convicted of indecent assaults

LONDON — Max Clifford, Britain's best-known celebrity publicist, was found guilty Monday of eight charges of indecent assault, including offenses dating back decades against women as young as 15.

Clifford, 71, who had denied the allegations, became the first high-profile person to be convicted after a police investigation set off by revelations that Jimmy Savile, a BBC television presenter who died in 2011, had been a serial sex offender.

Clifford, whose celebrity clients over the years have included Muhammad Ali and O.J. Simpson, forged close relationships with several of Britain's tabloid newspapers and was behind many big celebrity exposés.

He had been charged with 11 counts of indecent assault but the jury cleared him on two charges and was unable to reach a verdict on another.

Clifford is to be sentenced Friday. More than a dozen people have been arrested as part of the police inquiry known as Operation Yewtree.

—Stephen Castle, The New York Times

Obama administration begins search for new contractors to run health care site

WASHINGTON — The Obama administration has begun a wide-ranging search for companies to run the online federal health insurance exchange, seeking new talent to prevent a repeat of problems that immobilized the website last fall.

In laying out specifications for the project, the administration also provided insight into the next phase of development of the insurance marketplace, which is expected to handle a significant increase in enrollment over the next several years.

Federal officials said Monday that they intended to hold a new competition before awarding a contract and that they were particularly interested in responses from small businesses owned by women, disabled veterans and "socially and economically disadvantaged individuals," including blacks and Hispanic Americans.

Aaron Albright, a spokesman for the Centers for Medicare and Medicaid Services, said the move was a prelude to "the expected recompetition" of the contract for operation of the federal exchange.

"We must perform market research in order to determine if there are any small businesses that could perform this work," Albright said. The focus on smaller companies may reflect the administration's displeasure with how the project was managed by large government contractors like CGI Federal, the U.S. subsidiary of the CGI Group of Montreal, which had much of the responsibility for HealthCare.gov. Administration officials blamed the company for many of the problems that prevented people from enrolling online last fall, and in January they brought in another company, Accenture, as the "lead contractor."

The administration is now looking for companies to take over the project when Accenture's contract expires in January 2015. Joanne Veto, a spokeswoman for Accenture, said the government's effort did not reflect on the company's performance.

In documents distributed to federal contractors, the administration makes clear that it wants to find a vendor that can overhaul the website under "aggressive time constraints." The new contractor is supposed to make "continuous improvements" in the federal website, expanding its capacity and reducing error rates and response times.

—Robert Pear, The New York Times

OPINION

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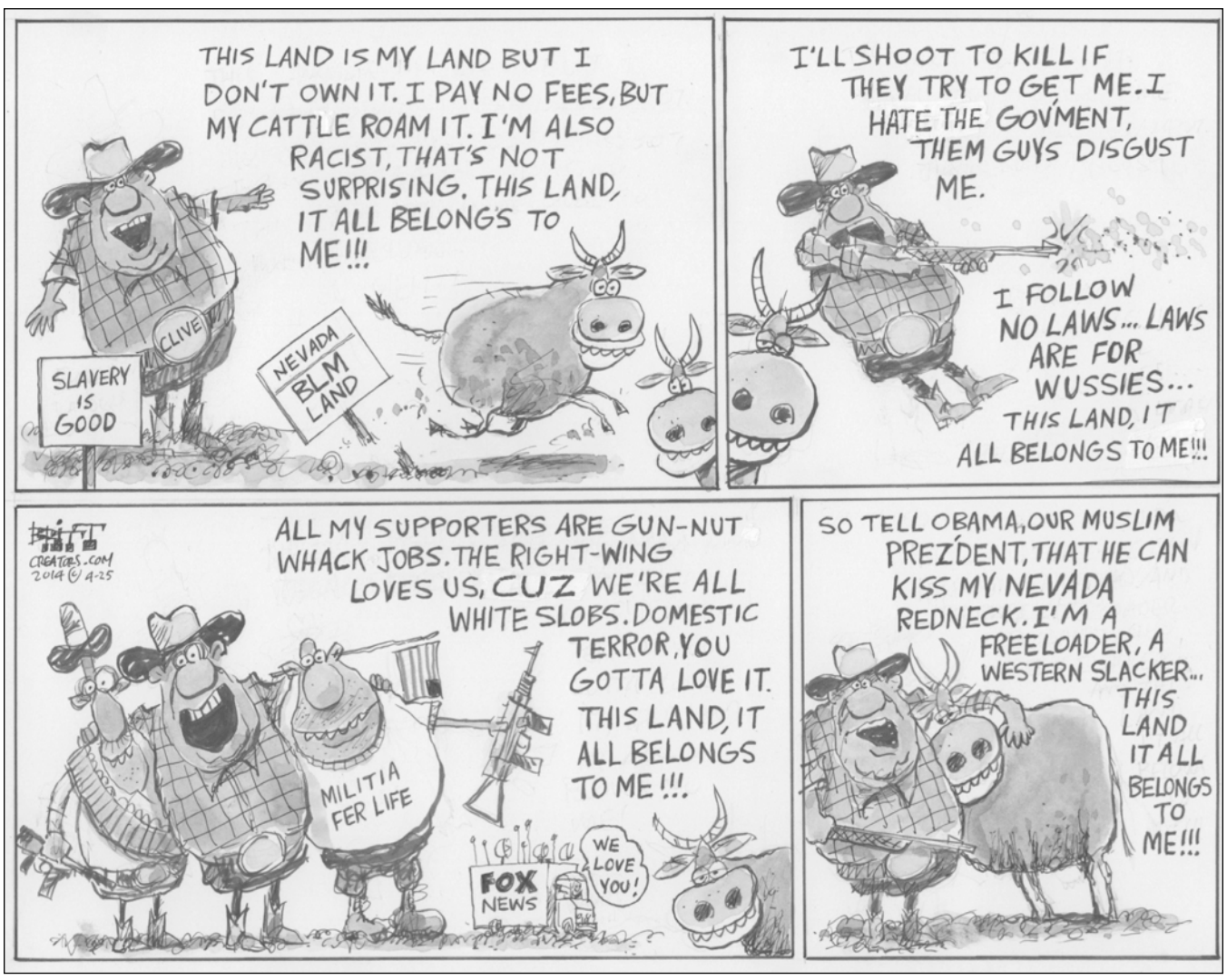

CLARIFICATIONS

An article about Phi Sig's JudComm hearings in the Friday, April 25 issue of *The Tech* is clarified to state that Evan Tencer did not speak on behalf of the IFC. IFC president Haldun Anil does not endorse Tencer's statements.

OPINION POLICY

Editorials are the official opinion of *The Tech*. They are written by the Editorial Board, which consists of Chairman Annia Pan, Editor in Chief Austin Hess, Managing Editor Judy Hsiang, and Opinion Editor Jacob London.

Dissents are the signed opinions of editorial board members choosing to publish their disagreement with the editorial.

Letters to the editor, **columns**, and **editorial cartoons** are written by individuals and represent the opinion of the author, not necessarily that of the newspaper. Electronic submissions are encouraged and should be sent to *letters@tech.mit.edu*. Hard copy submissions should be addressed to *The Tech*, P.O. Box 397029, Cambridge, Mass. 02139-7029, or sent by interdepartmental mail to Room W20-483. All submissions are due by 4:30 p.m. two days before the date of publication.

Letters, columns, and cartoons must bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. *The Tech* reserves the right to edit or condense letters; shorter letters will be given higher priority. Once submitted, all letters become property of *The Tech*, and will not be returned. Letters, columns, and cartoons may also be posted on *The Tech*'s Web site and/or printed or published in any other format or medium now known or later that becomes known. *The Tech* makes no commitment to publish all the letters received.

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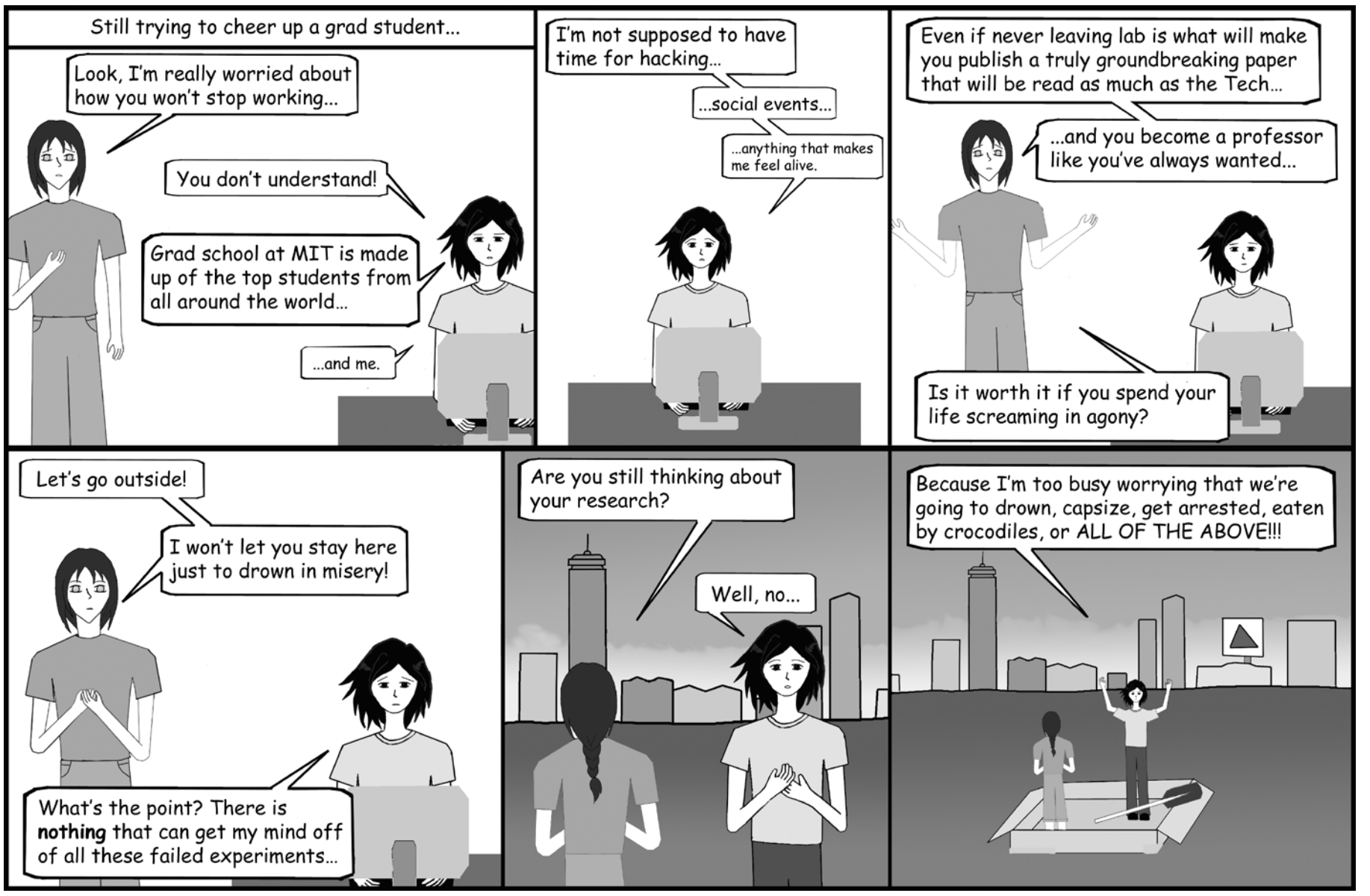
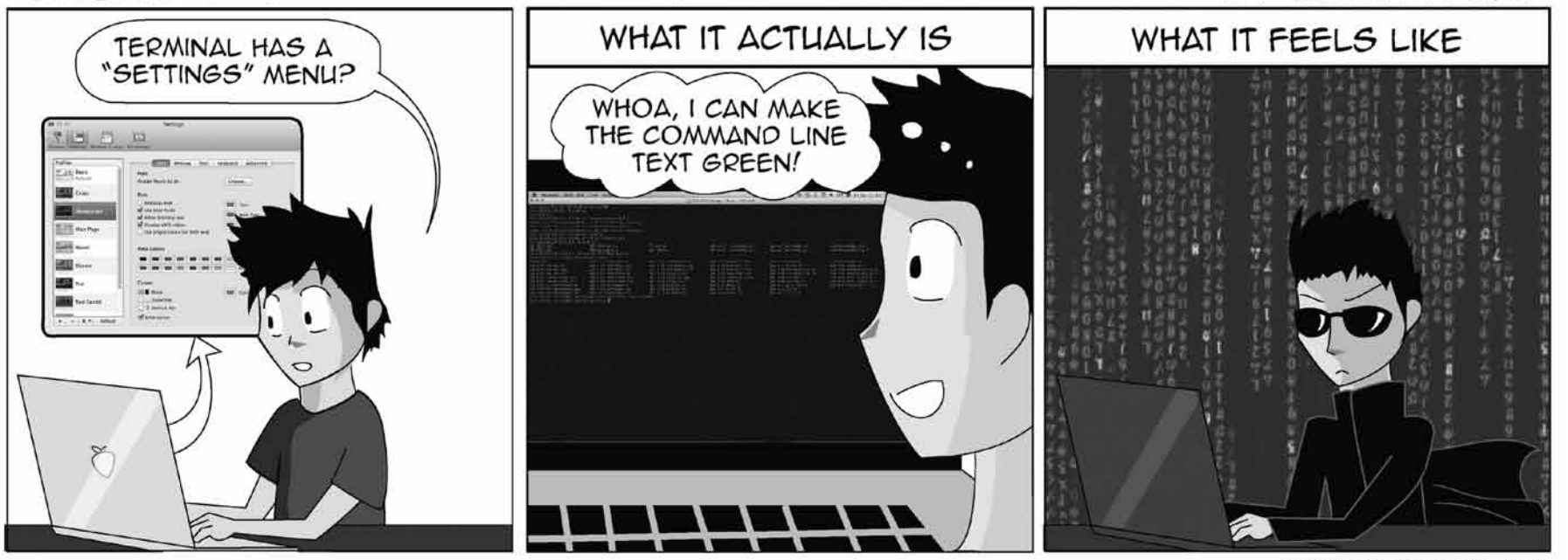
Somewhere on the Search for Meaning... by Letitia Li



Q.E.D. (QUITE EASILY DONE)

BY ERIKA TRENT



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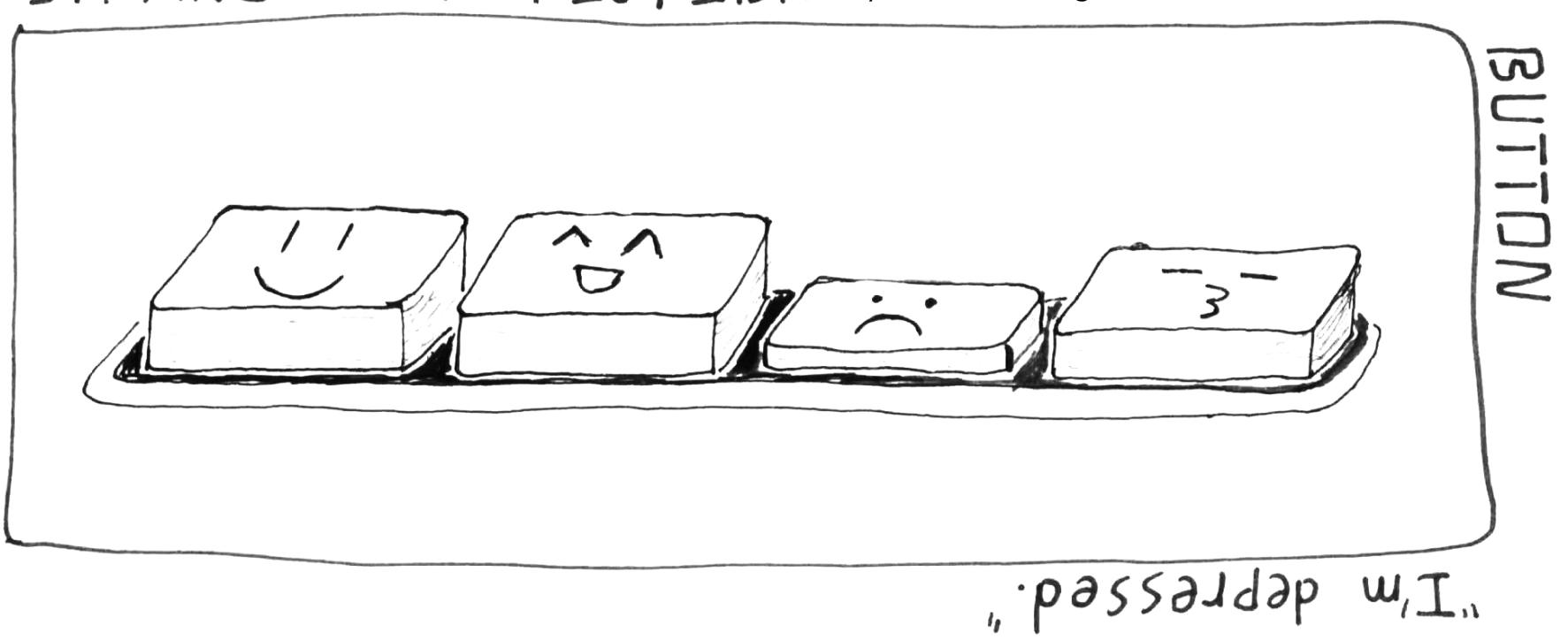
STRANGERS TO FICTION by Deena Wang



FUNFUNFUNF

by Jorge Cham

Sudoku

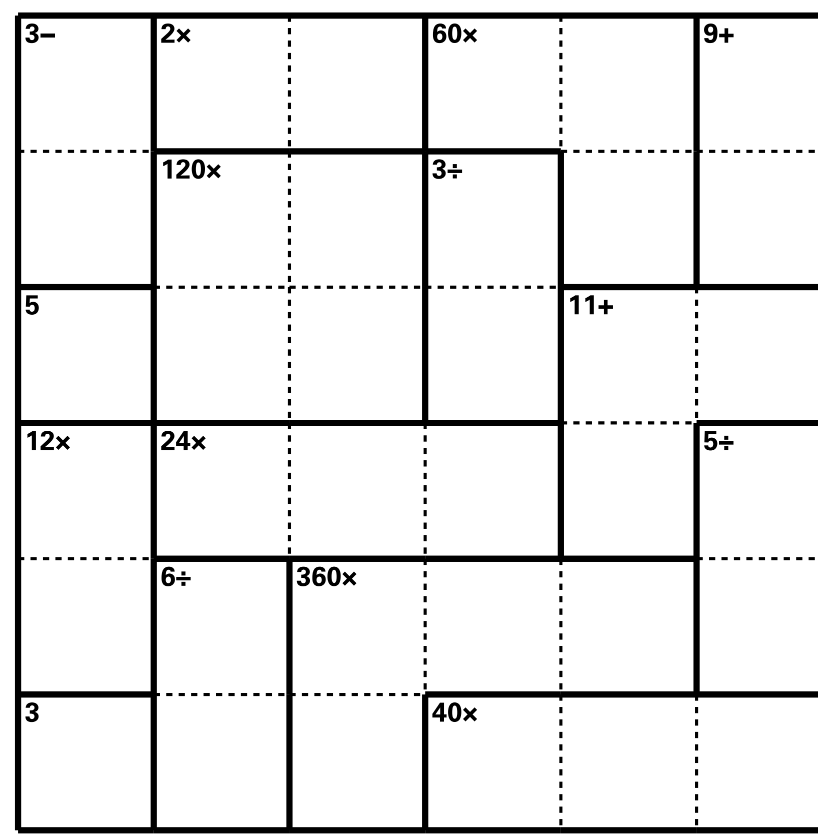
Solution, page 14

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

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.

Techdoku

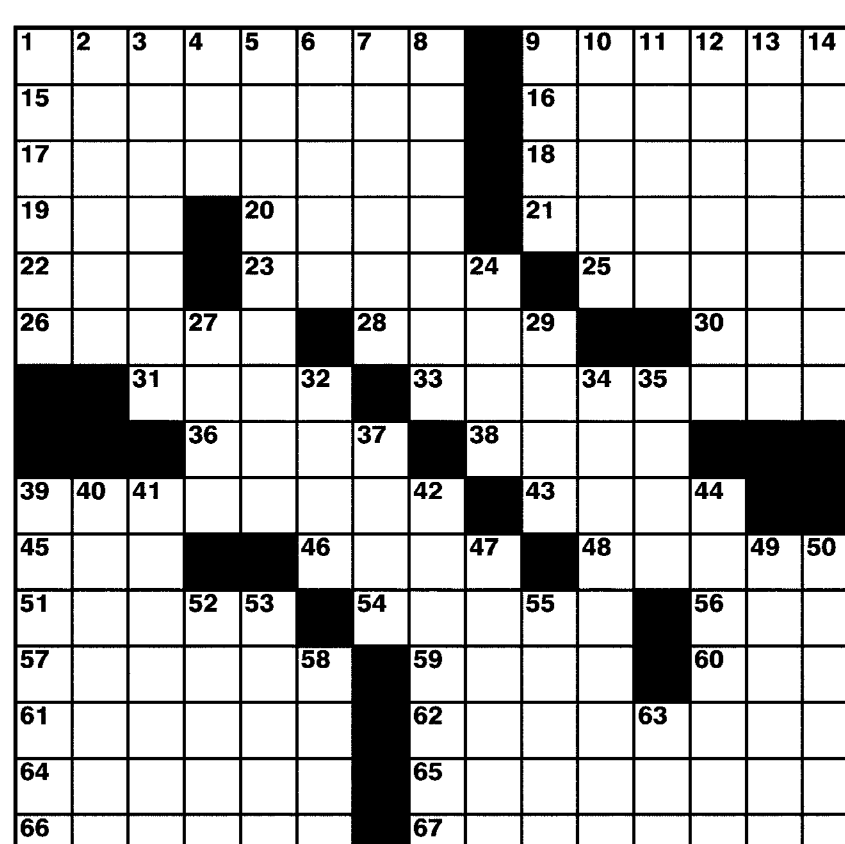
Solution, page 14



Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–6. Follow the mathematical operations for each box.

Saturday Stumper by Brad Wilber

Solution, page 14



ACROSS
1 Unable to diversify, perhaps
9 Watering hole
15 Tilt in the wind
16 1994 black-and-white biopic
17 Trenchant
18 Plea for gentleness
19 Home field of D.C. United soccer club
20 Old school adjunct
21 Groups of runners
22 "Help wanted"
23 Pax Romana year
25 Certain proofs of purchase
26 Elephant charge stopper
28 Cause hysterics in
30 "'Tis paid with sighs a plenty, and sold for endless __": Housman
31 Plug
33 Glitzy display
36 Mixed it up
38 How one visits a man cave
39 Not assured
43 "The Cradle of Civilization"
45 Sambadrome locale
46 Place to rest
48 Crushes
51 Angels' spring training city
54 Yeas and nays, say
56 Direct
57 Thoreau topic
59 Short on juice
60 Euchre forerunner
61 Combat mission
62 Onetime Chevy coupe utility
64 Pull out
65 Modernize, in a way
66 Skirted
67 Bosch's Garden of Earthly Delights, e.g.

DOWN
1 Yearning
2 Really fancy
3 Eats without relish
4 Anderson Cooper, circa 1988
5 "Are You Out of His League?", for one
6 Like a hawk
7 Porcelain center
8 React to excitement
9 Betrays desperation
10 Violations of the First Commandment
11 Sign of a struggle
12 Perfectly
13 Vine growth
14 Literary source of "out of sight, out of mind"
24 Reef toppers
27 Scene of runaway nuclear fusion
29 Sight on Disneyland's Matterhorn Bobsleds ride
32 $100 bill background color
34 One with bad table manners
35 Ant-farm material
37 Not very bright
39 Fount of creativity
40 Severely limit
41 Went deep
42 Office humor source
44 Fill the bill
47 It's often up against the wall
49 Preternaturally strong
50 Fluid
52 Cicero's father
53 Subject of a '60s movie remake?
55 Dragonfruit grow on them
58 Taken in
63 Zinger

Sudoku II

Solution, page 14

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

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.

Techdoku II

Solution, page 14

4–		6×		20×	
15×			480×		
	5×	288×		3	
3				2×	
48×		1–		6×	
	4		30×		1

Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–6. Follow the mathematical operations for each box.

"Big" Techdoku

Solution, page 14

63×		6×			23+			8
24×		252×		20×		9×	3÷	
			5		7		144×	
64×		9+			2–	168×		
	6	28+				15×		12+
168×			8		1		6×	
	135×	360×		144×	12×	4		7+
2			28×			56×		
5					7–			4

Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–9. Follow the mathematical operations for each box.

CSAIL
MIT COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE LABORATORY

DERTOUZOS LECTURE SERIES 2013-2014

Shafi Goldwasser, MIT

THE CRYPTOGRAPHIC LENS

Thursday, May 1, 2014

MIT Stata Center

Bldg 32-123/Kirsch Auditorium

4:00-5:30PM

Refreshments: 3:45PM

Going beyond the basic challenge of private communication, in the last 35 years, cryptography has become the general study of correctness and privacy of computation in the presence of a computationally bounded adversary, and as such has changed how we think of proofs, reductions, randomness, secrets, and information.

In this talk I will discuss some beautiful developments in the theory of computing through this cryptographic lens, and the role cryptography can play in the next successful shift from local to global and remote computation.

Goldwasser is the RSA Professor of Electrical Engineering and Computer Science at MIT. She is also a professor of computer science and applied mathematics at the Weizmann Institute of Science in Israel. Goldwasser received a BS degree in applied mathematics from Carnegie Mellon University in 1979, and MS and PhD degrees in computer science from the University of California, Berkeley, in 1984.

Goldwasser was the recipient of the Gödel Prize in 1993 and another in 2001 for her work on interactive proofs and connections to approximation. She was awarded the ACM Grace Murray Hopper award, the RSA award in mathematics, the ACM Athena award for women in computer science, the Benjamin Franklin Medal in Computer and Cognitive Science, the IEEE Emanuel R. Piore award, and the ACM Turing Award for 2012. She is a member of the AAAS, NAS and NAE.

The Dertouzos Lecture Series has been a tradition since 1976, featuring some of the most influential thinkers in computer science, including Bill Gates, Steven Jobs, Donald Knuth, John McCarthy, and Mitchell Kapor.

Formerly the Distinguished Lecture Series, the series has been renamed in memory of Michael Dertouzos, Director for the Lab for Computer Science from 1974 to 2001.

For more information: www.csail.mit.edu or 617.253.0145

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Rubin, Elitzer secure pledges in plan to distribute bitcoins

Donors have committed $500,000 to undergrads

Bitcoin, from Page 1

group. But hopefully [that's] what we'll enable."

Elitzer said that they hoped the project would also spur new research, both in the technology of cryptocurrencies and in the economics of how people use them.

"Right now there is not a geographic place that you can go to and assume that people have relatively broad access to bitcoin," Elitzer said, suggesting that that could change with their experiment, which might make for an interesting case study. "What might the world look like if bitcoin, or something like bitcoin, were widely accepted?"

MIT's undergraduate education dean, Dennis M. Freeman PhD '86, said in a statement: "By bringing students and faculty together to inform members of the MIT community about what bitcoin is and to research its use, Rubin and Elitzer are helping everyone to better understand this emerging technology."

This experiment is neither student's first bitcoin-related project.

In 2013, Rubin worked with three other undergraduates on a bitcoin-related project called Tidbit. Tidbit was later subpoenaed by the New Jersey attorney general as part of a consumer fraud investigation. Rubin, with the help of the Electronic Frontier Foundation, a digital rights group, is currently fighting for the subpoena to be withdrawn. MIT has sent a letter to the New Jersey attorney general in support of Rubin.

Elitzer said he was initially drawn to bitcoin after working at a non-profit, when he saw a potential for open protocols like bitcoin's to improve on "mobile money" systems aimed at those living in countries where most don't have a bank account. Elitzer is president and founder of the MIT Bitcoin Club, though he said that the club's role in the plans to distribute bitcoins to students is still being worked out.

Morcos said that perceptions of bitcoin have suffered due to its role as a funding mechanism for illegal enterprises (like the now-closed Silk Road), but he believes illegal activity makes up a much smaller portion of its present-day use. He said that even though it is not the main focus of the project, he hopes MIT students using bitcoin will highlight the technology's benefits, which he says "people in the bitcoin community already know."

Elitzer said it was one of their goals to "highlight" the "positive uses" of cryptocurrencies and related technologies.

Professor Alex P. "Sandy" Pentland PhD '82, director of the Human Dynamics Laboratory at the Media Lab and a faculty supporter of the project said in an email to *The Tech*, "I am supporting them because it is generally an awesome hack, and more specifically I am working to understand how our society can thrive in an age where everything is datafied and can be controlled by computer." He added, "While the specific properties of bitcoin have some real problems, getting everyone at MIT to start playing with bitcoin ... will prompt the MIT community to begin thinking seriously about how we can live in an all-digital future."

Rubin and Elitzer are aware that some students may decide to cash their bitcoins in for dollars.

"My chief hope is that there is not flux out," Rubin said, "that the bitcoins stay within the MIT community, or that it keeps on coming in because people buy more."

He and Elitzer want to see a bitcoin "ecosystem" develop at MIT in which people are not only exchanging bitcoins but also experimenting with related technologies.

According to Morcos, "Bitcoin is so novel, and to the extent that people do use it, it's really just as a novelty thing... You could go all day or all month and never see anywhere that you could spend bitcoin." With Rubin and Elitzer's project, he said "you could get a sense of what it might be like if [bitcoin] ever took off and became a more common way of buying things or using currency."

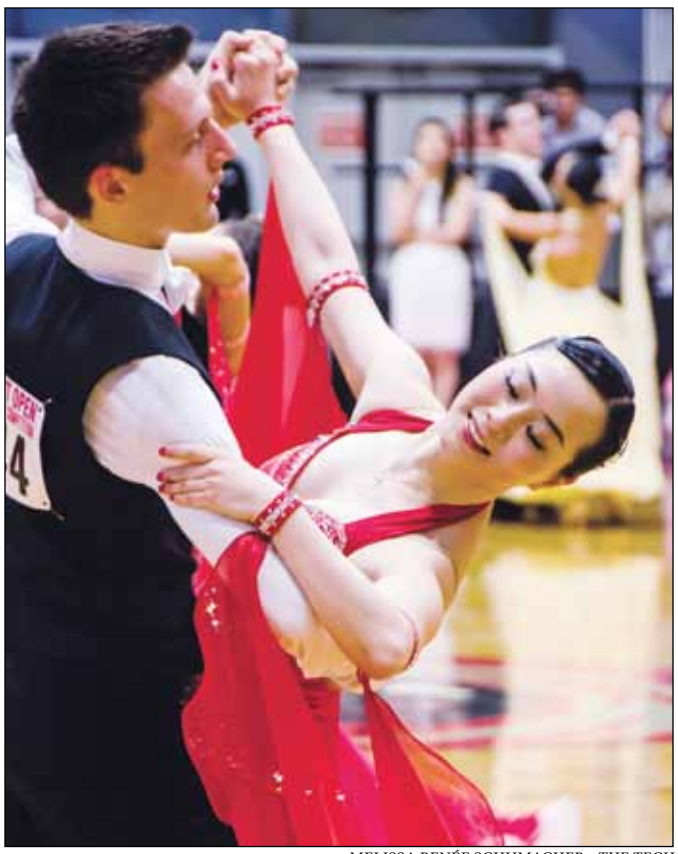
Elitzer challenged "some of the brightest technical minds of a generation" to come up with novel ways to use bitcoin.

Rubin listed secure wallet storage, bitcoin-based bill splitting, and web-based "microtipping" as possible examples of projects he would like to see inspired by the initiative, as well as research into the more technical topics like "colored coins" for network-based ownership agreements and "sidechain protocols" related to alternative cryptocurrencies.

Rubin added, "I think that MIT should be absolutely the center of the bitcoin universe. As a school

Bitcoin, Page 13

A swingin' weekend in Rockwell



MELISSA RENÉE SCHUMACHER—THE TECH

A couple participates in the MIT Open Ballroom Dance Competition, which was held on Saturday and Sunday at the Rockwell Cage. Dancers at beginner, intermediate, and advanced levels competed in Standard, Latin, Smooth, and Rhythm styles.

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PONDERING POSSIBILITIES

MIT life from the kitchen sink

The uncertainties of being the wife of a graduate student

By Shuen G. Chong

Surrounded on all four sides by the short, squat buildings of student family housing at MIT, the large, inviting playground is the focus of the view from every kitchen window, presumably positioned to enable mothers to call Johnny, or Ahmed, or Xiao Ming home for dinner. A plethora of languages are spoken here on the playground, but the main language is that of uncertainty.

> **The esteemed names of top professors inevitably come up alongside discussions about the weather and the kids.**

"I don't know how much longer we'll be here," is the usual refrain, followed tentatively, sometimes even furtively by, "depends on his… advisor." Ah, if only the academic advisors of our husbands knew that the power they wielded over our husbands' sleep, dreams, and nightmares also presided over the conversations of desperate-for-graduation housewives at the playground.

The esteemed names of these professors inevitably come up alongside discussions about the weather, the kids, and the price of mushrooms. For the international families whose husbands and fathers at MIT are aspiring academics, questions about the future often reverberate back without clear answers.

Four years ago, I left my classroom of mockingbirds, Shakespeare, and gerunds to move thirteen time-zones away and start a new life as the unwitting wife of an academic wannabe. "It'll be fun!" I thought. I had imagined that I would play house and cook for him. He, fueled by my nourishing soups, would graduate from his PhD program in four years, if not five, tops.

In my free time, I would attend free lectures in the universities around the area, have a couple of babies, and borrow intellectually stimulating books from some of the world's best lending collections. He'd graduate, get a faculty position at a university, and we'd move out of our 660 square foot apartment with 2.2 kids in tow for a settled domesticity at a college town. Life would finally begin.

Upon my arrival on these river banks of academia, however, I was caught unprepared for the gamut of uncertainty that I encountered in the heart of a PhD student's life in research — the question of passing the qualifying exam, the fear of being "scooped" by a competing lab, the option of a post-doc, the endless hunt for a faculty position, and, only then, the final seven-year publish-or-perish hurdle of tenure.

But first, he must actually graduate. There's the June date, the August possibility, and the January back-up. Or there's always staying another year. Or eight.

As aliens on a myriad of visas, we international wives and mothers soon learn to tread water together in this ocean of uncertainty. We have death, taxes, and each other as companions. Glad to finally stop floundering individually, we take refuge in finding each other around the gritty sandpit. We cheer each other on to keep our heads above laundry and dishes, meeting under the pretext of supervising our children on the playground.

This is where we encourage each other in varying accents to stand on our own two feet on American soil — put one foot in the present because this is our new home for now "so let's make the best of it, ja?" one foot in the past "because our children need their roots, no?" and one foot in the future because "it's important to plan ahead, si?"

We laugh at our math and joke about how we'd never get into MIT without our husbands' help. But deep down, we want to believe that our husbands will never get out of MIT without us, the ex-doctors, ex-teachers, and ex-lawyers who choose to cook, clean, and care for them while waiting for a time horizon that is constantly shifting.

The playground with its slides, swings, and see-saws beckons to my three-year old daughter. Glancing out of my kitchen window, I see my friends gathering. There will be more celebrations for that great job offer, more questions about possible school districts, and more agonizing over when he will graduate — that's for sure.

"Get your jacket on, sweetie!" I urge my little one, whose only uncertainty is whether she'll get to read two books or three at bedtime.

"It's time for Mummy to go to the playground!"

EVENTS APR. 29 – MAY. 05

TUESDAY

(1:15 p.m. – 1:45 p.m.) Our Digital Lives: Protecting Our Data In Use and At Rest — 32-144

(2:45 p.m. – 3:15 p.m.) Historic Letterlocking: The Art and Security of Letterwriting — 32-144

(6:00 p.m. – 7:30 p.m.) Silica Sounds in the Round — MIT Museum

WEDNESDAY

(12 p.m. – 1 p.m.) Artists Beyond the Desk Presents Esmeralda Barreiro — Killian Hall

(9 p.m.) LSC shows *The Hunger Games: Catching Fire* — 32-123

THURSDAY

(4:00 p.m. – 5:30 p.m.) Dertouzos Distinguished Lecture: The Cryptographic Lens — 32-123

(5:00 p.m. – 6:30 p.m.) Russian History in a Nutshell — 56-154

FRIDAY

(12:01 p.m. – 1:00 p.m.) Open Mic in the Lewis Music Library — 14E-109

(5 p.m.) Steer Roast pit lighting — Senior House Courtyard

SATURDAY

(1 p.m. – 4 p.m.) MIT Anime Karaoke — Coffeehouse lounge

(3 p.m.) RAMBAX Senegalese Drum Ensemble Outdoor Concert — Student center steps

SUNDAY

(10:00 a.m. – 11:30 a.m.) Beaver Dash — Z Center overhang

(8 p.m. – 11 p.m.) Folk Dancing with Live Croatian Music — Student Center 2nd floor

MONDAY

(7 p.m. – 9 p.m.) Internet, Security, and Power — Broad Auditorium

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CAMPUS ARTS

Joan Jonas to be the US representative at the next Venice Biennale

MIT professor emeritus will showcase new work at the renowned art exhibition

By Denis Bozic
ARTS EDITOR

Joan Jonas, a professor emeritus at MIT and a prominent contemporary artist, has been chosen to represent the United States at the 2015 Venice Biennale, one of the world's most prestigious contemporary art exhibitions. Venice Biennale (*Biennale di Venezia* in Italian) takes place in Venice every two years and brings new exciting art to hundreds of thousands visitors. The 56th International Art Exhibition of La Biennale di Venezia (May 9 — November 22, 2015) will be directed by Okwui Enwezor, writer, art critic, curator, and the Director of the Haus der Kunst, Munich.

Jonas was nominated for this role by Paul C. Ha, director of MIT List Visual Arts Center, who will serve as a curator and commissioner for this project. "Joan Jonas has taught at MIT since 1998 and has played an important role at the Art Culture and Technology department, as a teacher and a colleague," Ha told *The Tech.* "As a pioneering artist who began her career in New York in the 1960s, her [renown] brought in students of high caliber and potential. With her support, mentorship, and generosity of spirit, her students are practicing and thriving within the contemporary art world."

L. BARRY HETHERINGTON

MIT Professor Emeritus Joan Jonas, who has been chosen as the United States' representative at the 56th International Art Exhibition of La Biennale di Venezia.

The recipient of numerous awards, fellowships, and grants, Jonas developed her work from art history studies, which later evolved to performance and film in the 1960s as a result of her involvement with New York's avant-garde scene. Since then, her art has expanded to various media, and today it encompasses video, performance, installation, sound, text, and drawing.

For the five galleries of the U.S. Pavilion at Venice Biennale, Jonas will create interrelated, multimedia site-responsive installations that focus on, as she described it in a press release from Arts at MIT, "landscape and natural phenomena" and "the ocean as a poetic, totemic, and natural entity, as a life source and home to a universe of beings." The U.S. Pavilion at Venice Biennale, a building in neo-classical style, opened on May 4, 1930 and has been owned by the Solomon R. Guggenheim Foundation and managed by The Peggy Guggenheim Collection in Venice since 1986.

This is the third time that the MIT List Visual Arts Center is presenting work at Venice Biennale — previous projects include *Fred Wilson: Speak of Me as I Am* (2003) and *Ann Hamilton: Myein* (1999). Nevertheless, this event will be equally important for arts at MIT as it was before — if not even more so.

PAULA COURT

Joan Jonas, *The Shape, the Scent, the Feel of Things* performance at Dia:Beacon, 2005.

"When you think about all the biennials that occur throughout the world today: the Cairo, the Berlin, the Gwangju, and the Singapore — to name a few — you can safely say that the Venice started the biennial model," said Ha. "And one can also easily argue that out of all the biennials, the Venice still remains the most prestigious and most sought-after. This is one of the largest honors an artist can receive to represent their country in this hugely attended event — some five hundred thousand people attend the Biennale. So, having a member of our faculty chosen as the most important American artist, as presented by MIT List Visual Arts Center, brings great awareness to the art world that MIT is a place where leading artists teach, exhibit, and develop their talent."

Ha added, "This being the third time the List has presented at the Biennale is — we believe — unprecedented for one organization."

Ha hopes that 2015 Venice Biennale will help spread the word about MIT List Visual Arts Center to the rest of the world. "As the science labs at MIT are considered to be the top labs throughout the world, MIT List Visual Arts Center too is considered to be one of the top contemporary art institutions in the world. For those working in the field, the mentioning of the List brings acknowledgment and prestige," he added. This exhibition will hopefully also emphasize the wide artistic talents among the students and faculty at MIT, which is mostly known for its focus on science and engineering. "One prime example is [MIT alumna] Jennifer Allora who went on to represent the U.S. at 54th Venice Biennale," said Ha. "It is fitting that Joan will now be presented in that same pavilion."

RESTAURANT REVIEW

Highland, high score

Highland Kitchen in Union Square is an excellent choice for some casual comfort food

By Daniel Kolodrubetz
STAFF WRITER

It seems that every time I visit the Union Square area, I find a new spot that makes me wish that Somerville neighborhood was closer to campus. Highland Kitchen was a find that reaffirmed that sentiment. With well-executed and unique renditions of international comfort food as well as a modest and fun vibe, this restaurant is one that I could see myself returning to night after night.

The entrance of Highland Kitchen is dominated by a large and welcoming bar, complete with cheerful bartenders. The dining area is fairly spacious, but also quite busy, even on a weeknight. Decorations with a hipster slant adorning the walls, and the atmosphere displays creativity, which also translates to their menu.

My waiter was friendly and accommodating, and the entire staff was primed to work together to give guests the best dining experience possible. My water glass was never empty, finished plates were cleared promptly, and every question I had about the menu was answered thoroughly. Even if you just want to stop by for an after-work drink or a quick bite, Highland Kitchen will work hard to make you happy.

This menu has something for everyone, featuring comfort food favorites from jambalaya to bolognese. I started by playing eenie-meenie-miney-moe with the appetizer list, which simply had too many good looking options for an easy choice, and ended up ordering the creole shrimp remoulade. With perfectly cooked shrimp accompanied by a side of slightly firmer fried green tomatoes, all drenched in a delicious sauce with just the right amount of Cajun spice, this appetizer immediately let me know that they take food seriously.

I followed shrimp with a kale salad, which, as an eater with a strong carnivorous bias, surprised me by being one of the highlights of the night. Though it didn't come with the pomegranates on the menu — they are out of season — the replacement golden beets paired well with the ample amount of Romano cheese and zesty vinaigrette.

COURTESY OF HIGHLAND KITCHEN

Highland Kitchen offers a successful combination of eclectic menu and creative ambience.

Moving to the main part of my meal, I had to order the rhyming "Cuban Reuben", which blends two of my favorite types of sandwich. The emphasis was definitely on the Reuben half, as the dish came with a generous amount of pickled cabbage and Russian dressing. However, the flavor of the roasted pork cut through those condiments and gave exactly the right amount of the Cuban kick. What really took this sandwich over the top was the sandwich's crunchy grilled French bread, which gave a nice texture to every bite. The bonus on this plate was a truly enormous side of perfectly crisped hand-cut fries, which I could not stop eating long after I was full.

The other entrée that drew my eye was the goat stew — possibly due to the illustration of a goat right on the menu. Though advertised by both the menu and our waiter as spicy, I decided to steel myself and go for it. While the stew did make me empty my water glass at least once, the heat was not overwhelming and allowed all of the other flavors to come through. The goat was tender and the side of sweet fried plantains complemented the flavor of the stew, giving a respite from the spice whenever one was needed. After finishing off the stew, I was tempted to ignore the fact that I was in public and lick the plate clean.

Dessert placed the exclamation point on a divine dinner. Though there are several options, the warm banana bread pudding called my name as soon as the waiter handed me a menu. This delicious combination of banana custard and baked bread, covered in a decadent caramel sauce with a scoop of vanilla ice cream, was good enough to make me stop eating after the first bite just to say, "Wow." Of course, I soon got over that and polished off the rest.

Highland Kitchen ranks as one of the best restaurants I've visited in Boston. With an unpretentious atmosphere and marvelous waitstaff, you will definitely be kept happy while you are there. Although some of the pricier entrées break $20, the sandwiches are a steal at around $10. Every dish I tried was a distinct and delicious version of a comfort food classic from somewhere in the world, and the menu has more than enough variety to keep even the most adventurous eaters satisfied. Make the trip to Union Square to visit Highland Kitchen. You will be glad you did.

★★★★★

Highland Kitchen

150 Highland Ave.
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Admin. supports plan to give out bitcoins

Distribution to undergraduates planned for fall

Bitcoin, from Page 9

that's a leader in technology and science fields... it's kind of a shame that we're not already at this point."

Launching the project

Rubin first approached Elitzer with the idea in March. The original suggestion was just to give bitcoin to a select group of students. Elitzer instead proposed giving bitcoins to all undergrads, to which Rubin agreed. They wanted enough people involved for there to be "network effects."

Elitzer approached Morcos about the idea at the CoinSummit conference in San Francisco in late March. Morcos said he volunteered to organize the fundraising and reached out to MIT alumni and people he knew "in the world of bitcoin" in an effort to have all the funding committed before announcing the project.

Rubin and Elitzer met with MIT administrators and faculty about their plans in the weeks leading up to the announcement. Their press release lists as supporters, among others, Associate Director of the Media Lab Andy Lippman, computer science professors Hal Abelson PhD '73 and Frans Kaashoek, and Executive Director of the MIT Kerberos & Internet Trust Consortium Thomas Hardjono.

Rubin said that the timing of the announcement and fall launch date was intended to give students the summer to work on bitcoin-related projects.

According to the press release, Rubin and Elitzer, along with Hack-MIT, the MIT Society of Women Engineers, the MIT Bitcoin Club, and the College Cryptocurrency Network are organizing the MIT Bitcoin Expo, to be held Saturday, May 3. Rubin emphasized the role of the Society of Women Engineers in promoting diversity at the event and among those interested in the project.

The event's speakers will include Gavin Andresen, chief scientist and board member of the Bitcoin Foundation, among other important members of the bitcoin community. Rubin said the expo was meant to "give [students] the tools to make something over the summer."

According to Rubin, the details of how the $500,000 will be managed has not yet been determined.

The initiative's press release stated that the donations would provide for the purchase of $100 in bitcoin for each undergraduate in addition to informational events and the necessary infrastructure to distribute the bitcoins. Rubin said that the technical details of the distribution would be determined over summer, but added that they did not plan to use one commercial wallet service. He added that the bitcoins provided to undergraduates would be purchased shortly before their distribution so that their value would be as close as possible to the target amount of $100 per person.

Morcos emphasized that participation in the program was optional for undergraduates.

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MIT students strip for charity

JESSICA L. WASS—THE TECH

Kappa Sigma hosted the Nearly Naked Nearly Mile on April 19, where participants gathered outside the fraternity for snacks and a dunk tank before stripping off extra layers and running almost a mile through MIT's campus. The clothes participants wore to the event were donated to the American Red Cross and all proceeds from the event went to the Sean A. Collier Self Sponsor Scholarship.

6.0001 and 6.0002 to substitute for 6.00

New classes will be half-semester

Bitcoin, from Page 1

MIT while also taking four 12-unit classes.

"A lot of what freshman year should be about is choosing a major," said Guttag. Now that freshmen will have the option of taking 6.0001 in their fall semester, he said, they will be given the opportunity early on to see whether or not they are interested in computer science.

There will now be two different entry points into the 6.00 curriculum as a result of its split into 6.0001 and 6.0002. "People enter MIT with very different exposures to programming and computing," Guttag said. Students with more programming experience will be able to test out of 6.0001 and go straight into the more advanced 6.0002.

This move is meant to add flexibility to allow all students to be able to spread the classes across semesters as needed, or only take the second half if they have the experience required. Students may still, however, take both classes back-to-back in one semester and still learn the material equivalent to what was originally taught in 6.00.

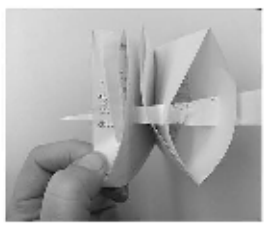
Professor Guttag has already tested the idea of separating 6.00 into two classes by doing so with the MITx version of the course. So far, he has been pleased with the results. He will be teaching both 6.0001 and 6.0002 over the next two years in order to evaluate general responses to the change from students.

After the preliminary experimental period, the department may offer different flavors of 6.0002 to be tailored to students' specific interests. This scenario would offer problem sets and projects that align with topics in other fields such as biology or aeronautics depending on which version of the class students take.

6.0001 and 6.0002 are now the classes that have the most digits after a decimal of any offered by MIT. They will be offered to all undergraduates starting next semester.

events

PRESERVATION WEEK
April 29–May 1, 2014



Tuesday, April 29, starting at 12pm
The Art and Science of Document Security: Past, Present, and Future, 32-144
A series of talks on creating secure documents in all forms. Join us for one session or several. Breaks for refreshments and questions throughout.

- 12:15 pm *"Our Marathon": The Boston Bombing Digital Archive* Jim McGrath and Alicia Peaker from *Our Marathon* give an overview of the project and archive.
- 1:00 pm **Opening Remarks**
- 1:15 pm *Our Digital Lives: Protecting Our Data In Use and At Rest*, Michael Halsall, MIT Senior Network and Information Security Analyst
- 1:45 pm *Benign Neglect No More: How Document Security Affects Access to Memory*, Kari R. Smith, Digital Archivist, MIT Libraries

- 2:45 pm *Historic Letterlocking: The Art and Security of Letterwriting*, Jana Dambrogio, Thomas F. Peterson (1957) Conservator, MIT Libraries
- 4:00 pm *Thanks for the Memory: 50+ Years of Computing at MIT* exhibit, 14N-130 Gallery visit led by Nora Murphy, Archivist for Reference, Outreach, and Instruction, MIT Libraries
- 8:00 pm *Monuments Men* **Movie Screening**, 26-100 Free screening of *The Monuments Men*, based on the true story of local art conservation hero George Stout who saved cultural heritage from ruin during WWII.

Wednesday, April 30, 11am-3pm
Our Marathon "Share Your Story" event, 10-105
Representatives from *Our Marathon* will be on campus to document the personal experiences of the MIT community during and after the 2013 Boston Marathon Bombing.

Thursday, May 1, 2-3pm
Scrapbook preservation webinar, 14N-132
A webinar about scrapbook preservation by Melissa Tedone, Conservator of the Parks Library Preservation Department

All events are free and open to the MIT Community.
To learn more, see: **bit.ly/preservation-week**

MIT Libraries

Solution to Techdoku

from page 6

4	2	1	6	5	3
1	5	4	3	2	6
5	3	2	1	6	4
6	4	3	2	1	5
2	6	5	4	3	1
3	1	6	5	4	2

Solution to Crossword

from page 6

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

Solution to Techdoku II

from page 7

6	2	1	3	4	5
1	3	2	4	5	6
5	1	6	2	3	4
3	5	4	6	1	2
4	6	5	1	2	3
2	4	3	5	6	1

Solution to Sudoku

from page 6

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

Solution to Big Techdoku

from page 7

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

Solution to Sudoku II

from page 7

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

Graham Francis' goal clinches win

Stolzenberg contributes to win with two goals and two assists

Lacrosse, from Page 16

the first two tallies a minute apart as Sam Jarvis earned the assist on the first strike at the 8:22 mark. Dylan Freundenberg quickly redirected a feed from Andrew Lawrence while C.J. Hanson capped the scoring spree with just under three minutes left in the period.

MIT's comeback bid began 20 seconds into the final frame as Orrson converted a pass from Harris A. Stolzenberg '17 for a man-up strike. Goalie Eric R. Bartell '16 turned away three shots by the Buccaneers before Michael S. Traub '17 found the back of the net to bring the Engineers within two (6-4) at the 8:57 mark. Orrson then cut the deficit in half exactly 3:12 later as Stolzenberg evened the score at six with 4:25 left to play. After an exchange in possessions, Stolzenberg registered what proved to be the game-winner with 2:45 on the clock.

Massachusetts Maritime won the ensuing faceoff that resulted in a Jarvis shot sailing wide of the net. Moments later, the Buccaneers were awarded an extra-man opportunity; however, a turnover nine seconds in gave the ball back to MIT with 1:32 remaining. Following a successful clear, the Engineers attempted to run out of the clock until Orrson found Francis for an insurance marker with nine ticks left.

Stolzenberg finished with two goals and two assists as Joel T. Santisteban '14 compiled seven groundballs and three caused turnovers. William B. Cyr '14 went 9-of-16 in faceoffs and posted five groundballs while John L. Kramer '15 totaled four groundballs and four caused turnovers. Timothy K. Wilczynski '14 chipped in three groundballs as Bartell produced six saves and five groundballs.

In net, Paul Painten tallied five saves, four groundballs, and two caused turnovers in the first half while Keison Cunningham finished the game for the Buccaneers with six saves. Nicholas Foley was 7-of-10 in faceoffs for Massachusetts Maritime as Stephen Ferro tallied five groundballs and four caused turnovers. Fernando Biwer Paz came up with four groundballs while Eric Murphy had three groundballs and two caused turnovers.

Chelsea's defensive tactics pay off in 0-0 tie in Madrid

Atletico Madrid create chances but fail to score

Soccer, from Page 16

the two have always been close. Everyone could expect that Guardiola would be grief-stricken with the passing of his good friend, however, he may be filled with more grief than we'd expect.

In Bayern's match with Werder Bremen this week in the Bundesliga, the cameras showed a gloomy and thoughtful Pep Guardiola after his team scored a goal to take the league. His demeanor was enough to sadden anyone watching the game. Guardiola will need to bounce back from his emotional loss — otherwise, Real Madrid will have the upper hand. Nevertheless, the 5-2 win over Werder Bremen will surely boost the confidence of the Bayern Munich players.

This draw is far from settled. Whichever way it goes all depends on Guardiola and how he will control his Bayern Munich. Just a little bit of dynamism will be enough to tilt the tie in their favor.

Chelsea vs. Atletico Madrid

While Real Madrid and Bayern Munich battled it out in what was an enjoyable game, Atletico Madrid and Chelsea bored soccer fans. This was mainly due to Jose Mourinho's tactics as he "parked the bus," meaning that he had Chelsea solely focus on defending without even considering attacking. Mourinho and Chelsea came to Atletico's home ground, knowing that Atletico had not lost there this Champions League.

They also knew that Atletico only conceded 5 goals in 10 matches and were lethal on the attack. Mourinho is known to play extremely defensive soccer when necessary, and that is what he exactly did. He knew that even one goal that Atletico would score on Chelsea would provide an extreme advantage for them, as Atletico is known to defend and press on the ball really well. Thus, the rematch would be extremely difficult, as Chelsea would have to dig themselves out of a hole.

Now, they go into the rematch on a level playing field. This means that Chelsea will be more willing to attack and get a goal, but they will still be cautious.

Atletico Madrid, on the other hand, will continue playing the soccer they've been playing all season long. They will look to pressure Chelsea and score. However, they might be more cautious in this leg than they were in the first leg, as Chelsea will look to create at least some chances. One thing that Simeone should focus on is finding that opening against teams who defend really well.

Atletico struggled to get in good chances for the most part of the first leg, and they generally tried getting in crosses, but to no avail. They have to figure out some way of opening up tight defenses. The solution to this problem will most likely be using their Turkish star, Arda Turan. Once Arda Turan came on for Diego Ribas in the first leg, Atletico suddenly had more dynamism and newfound energy as they started creating more chances and piling up on Chelsea. Simeone should work to center Atletico's attacks around Arda Turan.

The second leg of this draw will be more exciting than the first, but there might not be a victor at the end of 90 minutes. But the 90 minutes will definitely be filled with the two teams battling it out with everything they have. It is extremely likely that this match will go into penalty kicks.

Bayern Munich will be playing Real Madrid on April 29 and Chelsea will be facing Atletico Madrid on April 30. Don't miss out on the second leg of the semifinals!

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SPORTS SPORTS SPORTS SPORTS SPORTS

Real Madrid gain the upper hand with 1-0 win in first leg

Pep Guardiola must sacrifice total possession for chance creation if Bayern Munich is to stay alive

By Ali Soylemezoglu
SPORTS EDITOR

The four semifinalists of the Champions League battled it out in the first leg of the matches last week. While Atletico Madrid and Chelsea ended up drawing 0-0, Real Madrid edged one over Bayern Munich to earn a 1-0 victory. There now only stands one more leg between these four teams and the finalists. While two teams will earn tickets to the final in Lisbon, Portugal, two teams will face the agony of defeat.

Bayern Munich vs. Real Madrid

Real Madrid managed to pick up a 1-0 win at home with a goal from their Frenchman, Karim Benzema. Although this will certainly provide an advantage for Madrid going into the second leg, Bayern Munich still have it in them to see off their opposition, especially since they will be playing at home. Some may be wondering how come Bayern Munich, who managed to score seven goals against Barcelona just a year ago, is now struggling to find chances against Real Madrid. The difference is in the different strategies that last year's manager, Jupp Heynckes, and their current manager, Pep Guardiola use.

Heynckes' Bayern Munich was much more dynamic and stronger on the attack, always pushing forward and looking to create chances. Pep Guardiola, on the other hand, has always valued possession above anything else in soccer. His Barcelona had perfected the tiki-taka style of play, and he's trying to employ the same thing with Bayern Munich.

His strategy is working to an extent — he managed to win the Bundesliga with seven games to go. He's also come this far in the Champions League, and his side did maintain most of the possession in the game against Real Madrid. Where his strategy fails is when it comes to actually attacking. With so much effort put into to the building up plays, his Bayern Munich really can't create chances.

Thus, he's received criticism from Bayern Munich's honorary president and former German superstar player, Franz Beckenbauer. Beckenbauer has expressed his disappointment in Bayern Munich's failure to attack against Real Madrid. This perhaps is simply not a disappointment in the semifinal match, but Bayern's general style in the Champions League thus far. They struggled against Arsenal even when Arsenal were down to ten men. Furthermore, they struggled against one of the worst Manchester United squads in recent history.

Guardiola is accustomed to valuing possession and control over dynamic attacking and chance creation. Perhaps his perfected tiki-taka system is the ideal form of what Europeans call "total football", but in modern day soccer, the tiki-taka does not work as effectively as it once did, as teams have now started finding ways to work around the strategy.

Real Madrid, on the other hand, make full use of their attacking powers and do not mind not keeping the ball all that often. Their style is based in counter-attacking soccer, but they can also create chances quickly in an organized manner. Thus, they are quick on the attack and able to get a relatively good amount of chances with less possession.

Real Madrid will go into this match with an advantage, and they will be fine with a 0-0 draw. Bayern, on the other hand, will have to score. Guardiola must part with his possession-based soccer to some extent if he wants to make use of players like Ribery and Robben and the dynamism they can bring on the pitch. Otherwise, his possession-based soccer will make it look like Real Madrid defended really well. However, it is apparent that if one brings a little bit of pressure and looks to create chances, then Real Madrid has flaws in its defense that can easily be exploited.

One last point to make about this match is related to the passing of Tito Vilanova, who died at age 45 on April 25 after a battle with throat cancer. Tito Vilanova was Guardiola's assistant at Barcelona, and

Soccer, Page 15

Men's lacrosse team surges from behind to secure an 8-6 win

MIT's six-goal run in the last quarter is enough to lift them over opponent

By Mindy Brauer
DAPER STAFF

MIT generated six unanswered goals during the fourth quarter to come from behind to defeat Massachusetts Maritime Academy, 8-6, in a NEWMAC men's lacrosse game on Saturday, April 26. Paul R. Orrson '16 led the way for the Engineers (9-7, 4-2 NEWMAC) with a game-high five points on three goals and two assists. Reed McLean paced the Buccaneers (7-8, 1-5 NEWMAC) with two goals in their final game of the year.

MIT will continue its season next week as the No. 3 seed in the NEWMAC Tournament. The Engineers will visit either Babson College or Springfield College for a semifinal matchup on Wednesday, April 30.

Although the first half was a back-and-forth affair, Massachusetts Maritime controlled the action as it held a 2-1 edge at the intermission. Anthony Kurylak put the visitors on the board after 2:23 expired while the lead grew to 2-0 at the 9:03 mark of the second quarter courtesy of a solo effort by Ryan McNeill. MIT ended the shutout less than three minutes later on Orrson's unassisted marker.

In the third quarter, Orrson found Graham M. Francis '16 for the equalizer with 10:13 on the clock. The Buccaneers responded with four straight goals to establish a 6-2 lead late in the frame. McLean recorded

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UPCOMING HOME EVENTS

Tuesday, April 29

Baseball vs. Wesleyan University — *4 p.m., Briggs Field*

Wednesday, April 30

Baseball vs. Rhode Island College — *4 p.m., Briggs Field*

Thursday, May 1

Baseball vs. Eastern Connecticut State University — *4 p.m., Briggs Field*

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