

Design of GradRat unveiled yesterday

Controversial elements: included Dropbox logo, excluded IHTFP

By Shirley Chen

It takes more than smooth jazz, fancy desserts, and chocolate fountains to lure graduate students out of their labs and into the Walker Memorial on a Thursday evening. But the unveiling of the GradRat — the MIT graduate ring — managed to do so yesterday.

Unlike the iconic undergraduate Brass Rat, which is customized by each class, the GradRat is only redesigned once every five years. The first GradRat came out in 2003, echoing MIT's increasing graduate student population. The one unveiled yesterday was the third-generation GradRat.

GradRat, Page 11

Former biotech king, dethroned and jailed

Blech convicted of securities fraud

By Andrew Pollack
THE NEW YORK TIMES

He was once hailed as the king of biotechnology. In the industry's frontier days, David Blech was the top gunslinger, quick to draw his checkbook to start new companies or prop up faltering ones.

Blech was the initial financial force behind the industry giant Celgene, the rare disease specialist Alexion Pharmaceuticals, and the cancer drug developer Ariad Pharmaceuticals, not to mention Icos, which developed the impotence pill Cialis.

In the early 1990s, Blech was worth about \$300 million and

Representations of grad life, good humor, and references to current events are the most prominent themes in the design of the GradRat.

The bezel features a beaver holding a branch and elements such as an overturned coffee mug and a night skyline, all references to the nocturnal work habits of many graduate students.

The GradRat includes other traditional BrassRat staples such as ivy leaves floating in the river. On the bottom right of the bezel, the beaver has carved "4/15," the date of the 2013 Boston Marathon, on a

Blech, Page 11

Plans for 300 Massachusetts Avenue block approved



JESSICA L. WASS—THE TECH



IMAGE COURTESY OF FOREST CITY ENTERPRISES

Plans for a new pharmaceutical building abutting Random Hall were approved by the Cambridge Planning Board on Tuesday. Above is a rendering of the block presented to the Board. The building will replace the eateries on the 300 block of Massachusetts Ave., which have already closed.

Swartz report spurs MIT to hold forums on open access, computer crime

In response to questions raised after the prosecution and death of Internet activist Aaron Swartz, MIT will arrange gatherings for the community to discuss ethics and information technology, Provost Chris Kaiser and Faculty Chair Steven Hall announced Wednesday. The dates of the gatherings will be announced "in the coming weeks," according to their email to the MIT community.

Kaiser and Hall also announced a new website, swartz-review.mit.edu, where MIT affiliates can comment on questions posed in a report written after President L. Rafael Reif asked computer science professor Hal Abelson to look into the role MIT played in 2011 and 2012 as the government pursued felony charges of computer fraud against Swartz.

The questions:
Should MIT develop additional on-campus expertise for handling potential computer crime incidents, thus giving the Institute more flexibility in formulating its responses? When Aaron Swartz's laptop was discovered wired

up to a network switch in a Building 16 basement closet, MIT police sought help from Cambridge police, unintentionally involving a Secret Service agent and opening the way for what many saw as an overzealous federal prosecution.

Should MIT policies on the collection, provision, and retention of electronic records be reviewed? Following the arrest of Swartz, MIT provided to authorities electronic records showing that he had used a Python script to download millions of journal articles from JSTOR. Swartz's defense would later argue that MIT violated his constitutional rights in doing so.

Should an MIT education address the personal ethics and legal obligations of technology empowerment? Should it include and understanding of the legal frameworks that govern technology innovation and exploratory behavior? Should it include awareness of the interest in policy questions that will arise in future work of many graduates?

Swartz, Page 14

IN SHORT

The deadline for registration is today. All continuing students must confirm your registration online or face a \$50 fine.

Today is also the degree application deadline for February graduation. Remember to apply or face a \$50 late fee.

Thirdly, today is the deadline for HASS Concentration proposal forms for second-term juniors and completion forms for second-term seniors. Or face the same \$50 fine.

PE Classes begin on Monday! Remember to show up on time or lose your spot to someone on the wait list.

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

MIT PRIDE: YOUR NEW LIFE

What to do when you encounter people from that school down the road. **FUN, p. 5**

MIT MTG DOES AVENUE Q

The Musical Theater Guild pulls off the nuances of the musical. **ARTS, p. 7**

EVERYONE LOVES FREE THINGS

With the MIT ID, you can get into many concerts and museums free! **ARTS, p. 8**



WHAT TO DO WITH 6500 SILKWORMS

The Media Lab's Mediated Matter group used them to make the Silk Pavilion. **ARTS, p. 9**

US INTERVENTION IN SYRIA?

Police action would only lead to a power vacuum. **OPINION, p. 4**

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Weather Systems	Weather Fronts	Precipitation Symbols	Other Symbols
H High Pressure	Trough	Snow Rain	Fog Thunderstorm Haze
L Low Pressure	Warm Front		
Hurricane	Cold Front		
	Stationary Front		

Australia’s prime minister, facing election, drops in poll

By Matt Siegel
THE NEW YORK TIMES

SYDNEY — Prime Minister Kevin Rudd, who emerged triumphantly from the political wilderness to regain Australia’s leadership earlier this year, is battling widespread predictions of a defeat in federal elections Saturday that would bring an end to his party’s tumultuous six years in power.

The contest pits Rudd, of the Labor Party, against Tony Abbott, the leader of the conservative opposition Liberal-National coalition. Rudd, who served as prime minister from 2007 to 2010, returned to the leadership in June after a nearly two-year campaign by his supporters culminated in a party coup that dispatched the country’s first female prime minister, Julia Gillard.

But the Labor Party, which dumped Gillard in the hopes of averting a landslide loss that would devastate its ranks in Parliament, has struggled to shake an image that it is more focused on personal feuds than on press-

ing issues like the slowing of Australia’s mining-driven economy and the record number of asylum seekers trying to reach the country in dangerous and overcrowded boats.

Although Rudd’s return saw a bounce in support for Labor, which has led a minority government since its poor showing in the previous federal elections in 2010, polls indicate that surge has now evaporated. And in a remarkable reversal for a man once considered Australia’s most popular politician, analysts say the question is not whether the Labor Party will lose, but by how much, and whether the casualties may include Rudd himself, who is facing a tough fight over his own seat in Parliament.

In a survey released Monday by Newspoll, based on polling from Aug. 30 to Sept. 1 among about 1,110 voters, Abbott was shown for the first time to have overtaken Rudd as the nation’s preferred prime minister by 43 percent to 41 percent, although the difference between them is within the poll’s

margin of sampling error of plus or minus three percentage points.

The same poll showed Labor trailing the opposition coalition, 54 percent to 46 percent. That result would prove disastrous for Rudd and deliver a resounding majority in Parliament for Abbott.

“Maybe our Lord will materialize and touch the forehead of Kevin Rudd and anoint him his chosen representative on earth,” said Rick Kuhn, a professor of politics at the Australian National University in Canberra. “But short of that, I don’t think it’s going to happen.”

Saturday’s election will mark the end of the longest campaign season in modern Australian history. The contest, although officially declared by Rudd last month, has effectively been under way since January, when Gillard announced, unusually early, that the vote would be held in September. That opened an acrimonious nine-month political slog during which Gillard’s popularity, and support within her own party, collapsed.

Egypt’s interior minister survives assassination attempt

By David D. Kirkpatrick and Mayy El Sheikh
THE NEW YORK TIMES

CAIRO — A powerful bomb blasted through a convoy of cars carrying the interior minister along a residential street Thursday, raising fears of a widely predicted turn toward terrorist violence by supporters of Egypt’s ousted president, Mohammed Morsi.

The minister escaped and so did his would-be assassins. But the explosion killed at least one police officer, injured 10 others and wounded at least 11 civilians, according to an official statement from the Interior Ministry. Speaking independently, Gen. Osama al-Soghayar, security chief for Cairo, put the number of civilians injured far higher, at more than 60.

A police officer, a 7-year-old child and others lost legs or other limbs in the explosion, ministry officials, medics and witnesses said. Neighbors said they found pieces of flesh scattered in the street as far as 150 feet

from the explosion.

“We started collecting the carnage,” said Mahmoud Saed, 22, a salesman. “I saw a leg, some toes, then another leg and some burned bits and pieces.”

No one claimed responsibility. The Muslim Brotherhood, the Islamist group leading protests against the military’s removal of Morsi, its ally, denounced the attack. But Egyptians across the political spectrum reacted with grim anticipation, convinced that the assassination attempt marked a return to the kind of violent Islamist insurgency that erupted here in the 1990s.

“What happened today is not the end but the beginning,” Interior Minister Mohamed Ibrahim told reporters. It is “a new wave of terrorism,” he said.

Since the July 3 ouster of Morsi, the nation’s first democratically elected president, Islamists have warned that the theft of their electoral victories would lead some in their ranks to give up on the democratic

process and resort to violence, just as some did in the 1990s. And weeks ago, even before there was much evidence of such a turn, the new government installed by Gen. Abdel-Fattah el-Sissi began portraying its crackdown on the Brotherhood and other Morsi supporters as a mortal struggle against “terrorism.”

Since security forces killed more than 600 protesters while breaking up two pro-Morsi sit-ins three weeks ago, Interior Ministry officials have blamed his supporters for killing 117 members of their own police force. Of these, at least 43 were killed in street fighting with protesters at the sit-ins, where at least a few had guns. Scores of police officers have been killed by militants in the relatively lawless Sinai, including two dozen killed in one strike last month. And perhaps as many two dozen others were killed in drive-by shootings or scattered attacks elsewhere. Several were executed in an attack at a police station in Giza, across the Nile from Cairo.

Europe offers compromise to US on airline emissions taxes

By James Kanter
THE NEW YORK TIMES

BRUSSELS — Seeking to end years of acrimony, the European Union has made concessions to the United States to try to gain support for global rules on airline emissions.

Under the arrangement, the European Union would pare back its regulations, applying them only to its own airspace. The original plan, which the United States and other countries rejected, would have imposed charges for emissions over an airline’s entire route if the flight began or ended in Europe.

In exchange, Europe is pushing for a global deal on aviation emissions.

The European concessions — proposed quietly over the summer and made public this week — aim to end a trans-Atlantic dispute over a European law to curb

emissions on major international routes. In doing so, the European Union is looking to present a united front with the Americans and press the rest of the world to adopt similar or more extensive controls.

“This is a multilateral negotiation where you give and take,” Isaac Valero-Ladron, a spokesman for the European Commission, said in a statement. “We should not miss the bigger picture: a global deal means more emissions covered in the long term.”

The European law, which came into force on Jan. 1, 2012, covers emissions from most flights that touch down in, or take off from, European airports, obliging foreign airlines to buy some carbon permits from traders and governments. Airlines face fines of 100 euros, or \$131, for each excess ton of carbon dioxide emissions that they fail to offset with permits. Repeated breaches can even lead to a ban from European airports.

So far, the rules have been applied only to flights within Europe, and European carriers and most non-European airlines have complied. The program is supposed to be expanded next year to include international flights in and out of Europe.

Despite the proposed concessions, a global deal is still a long shot. The United States and other countries have supported the arrangement, according to European Union diplomats. But emerging nations like China and India are resisting similar levels of regulation, which could make it difficult to develop global standards.

From the start, the aviation emissions law approved by European Union nations in 2008 has generated intense opposition among foreign governments, which say the rules violate their sovereignty and unfairly raise the costs of airlines from developing countries.

Chinese official, symbol of greed and corruption, is sentenced

HONG KONG — A court in northwest China sentenced a former provincial safety official Thursday to 14 years in prison for graft, a year after he became a symbol of a callous and corrupt bureaucracy when Chinese Internet users circulated photographs suggesting he had been living beyond his means.

The Xi’an Intermediate People’s Court issued the sentence after convicting Yang Dacai, a former safety inspection official in Shaanxi province, on charges of taking bribes and possessing assets of unclear origin, Chinese state-run news outlets reported Thursday morning. Phone calls to the court in Xi’an seeking confirmation of the sentence went unanswered Thursday.

Yang’s case is one of many in China in recent years to demonstrate how local officials can be held accountable to public opinion, as ordinary citizens frequently turn to microblog posts and other online social networks to vent complaints against rampant corruption or other abuses of power.

—Neil Gough, *The New York Times*

E-cigarette use doubles among students, survey shows

WASHINGTON — The share of middle and high school students who use e-cigarettes doubled in 2012 from the previous year, federal data show. The rise is prompting concerns among health officials that the new devices could be creating as many health problems as they are solving.

One in 10 high school students said they had tried an e-cigarette last year, according to a national survey by the Centers for Disease Control and Prevention, up from 1 in 20 in 2011. About 3 percent said they had used one in the previous 30 days. In total, 1.8 million middle and high school students said they had tried e-cigarettes in 2012.

“This is really taking off among kids,” said Dr. Thomas Frieden, director of the CDC.

E-cigarettes are battery-powered devices that deliver nicotine that is vaporized to form an aerosol mist. Producers promote them as a healthy alternative to smoking, but researchers say their health effects are not yet clear, although most acknowledge that they are less harmful than traditional cigarettes. The Food and Drug Administration does not yet regulate them, although analysts expect that the agency will start soon.

—Sabrina Tavernise, *The New York Times*

Syria crisis reveals new paradigm

BERLIN — In the early 19th century, the German military theorist Carl von Clausewitz concluded that war is an act of politics pursued by other means. Two centuries on, a student of modern conflict might be forced to recast the doctrine for the globalized, 24-hour-news-cycle era: War is a political act pursued to the extent that politics itself permits.

In recent days, indeed, as Western leaders wrestled with claims of chemical weapons use on the outskirts of Damascus, Syria, on Aug. 21, the balance between politics at home and the ability to project military power abroad seems to have shifted into a new and more circumspect era, as voters tire of fruitless wars overseas and of their leaders’ rationales for fighting them.

When the contenders for the German leadership in elections this month faced off in a televised debate the other day, for instance, the gathering showdown over Syria seemed almost a postscript.

Only when the 90-minute discussion between Chancellor Angela Merkel and her Social Democratic challenger, Peer Steinbrück, was in its final stages did it turn to the question of whether Germany should participate alongside the United States in any military intervention in Syria.

—Alan Cowell, *The New York Times*

Timken agrees to split in two after activist investor pressure

Activist investors scored another victory Thursday when the board of the Timken Co. agreed to spin off its steel business from its industrial bearings operations amid pressure from two big shareholders.

Timken’s decision came after a nonbinding vote by investors earlier this summer supporting such a move. The proposal was led by the California State Teachers’ Retirement System and Relational Investors, the hedge fund led by Ralph Whitworth. The 114-year-old company said at its annual meeting that it would consider the matter.

While Timken had argued that the company was better off staying together, the two dissident investors had argued that a division would create more value for their fellow shareholders.

Activists have taken on a number of big targets this year and claimed victory, including at Apple Inc., Microsoft and the Hess Corp.

Under the terms of its proposed split, which is expected to be completed within 12 months, Timken will spin off its engineered steel arm to create a new publicly traded company with about \$1.7 billion in annual sales. The remaining business will retain the Timken name and have estimated annual revenue of about \$3.4 billion.

James Griffith, Timken’s chief executive, will retire once the spinoff is finished. He will be succeeded at Timken by Richard G. Kyle, who is group president. John Timken Jr. will become nonexecutive chairman.

Ward Timken Jr., the current chairman, will take over as the chief executive of the steel company.

Both the California State Teachers’ Retirement System and Relational Investors said they supported the split.

“We fully support and commend Timken’s decision announced today because it means they’ve listened to their shareholders,” Anne Sheehan, Calstrs’ director of corporate governance, said in a statement. “In particular, we are grateful to the special strategy committee for its diligent work and to the entire Timken board for responding to the will and long-term interests that Timken’s shareholders expressed at the annual meeting. We firmly believe this action will create long-term benefit for the shareholders.”

—Michael J. De La Merced, *The New York Times*

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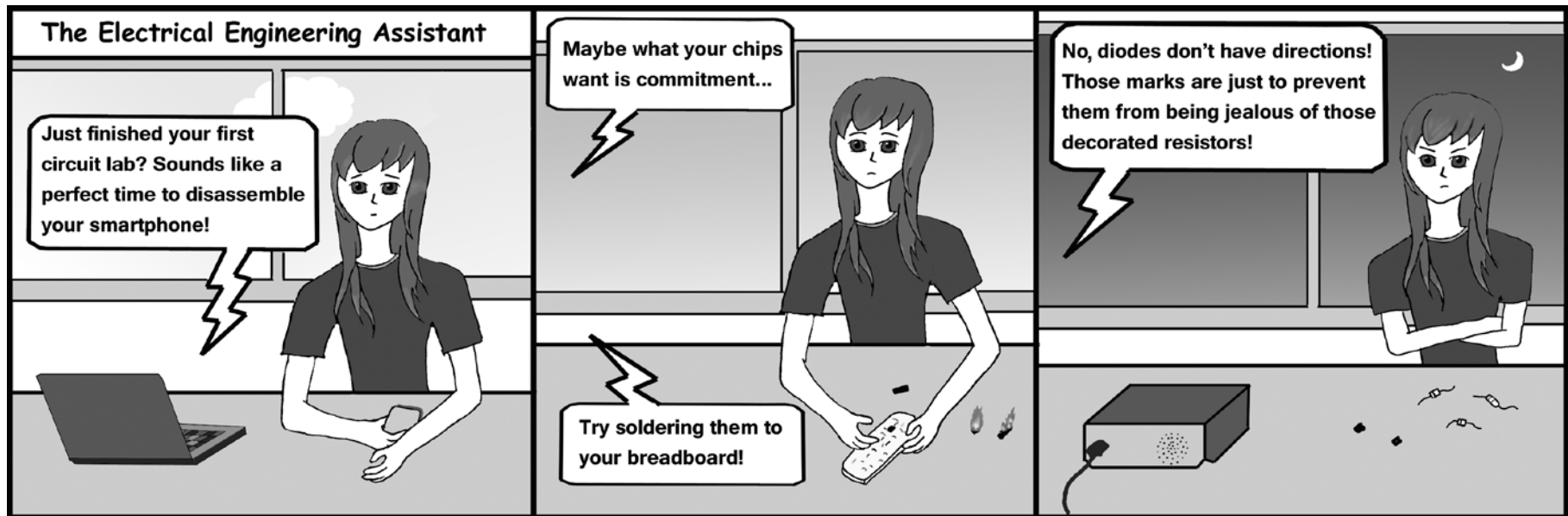
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Somewhere on the Search for Meaning... by Letitia Li



Odd Jobs

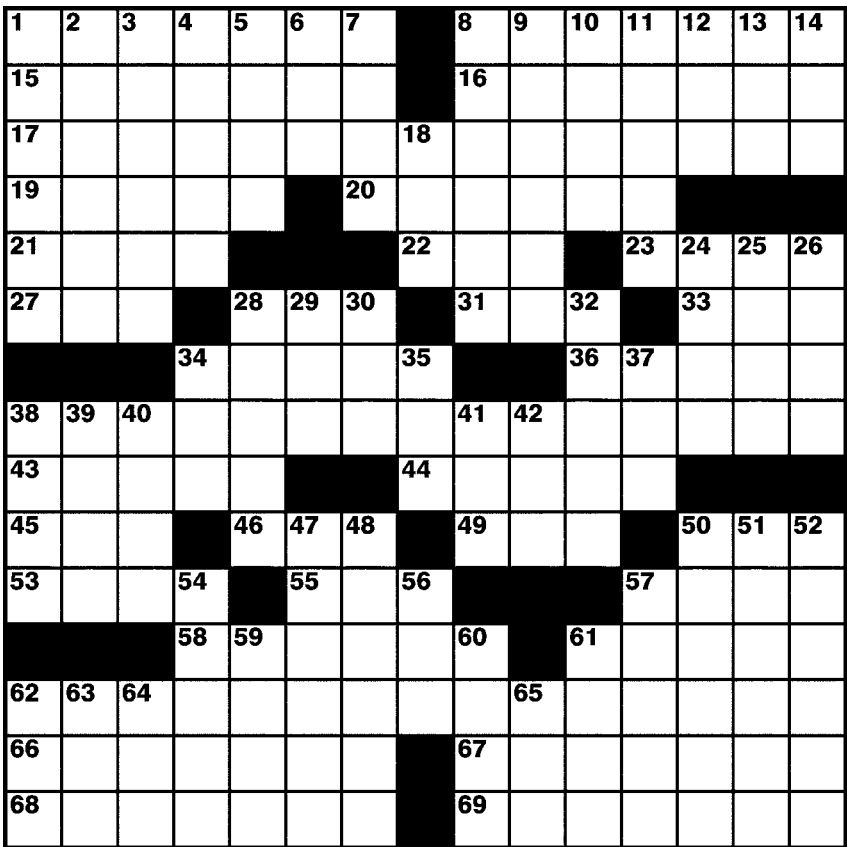
by S.N. and Mike Nothnagel

Solution, page 12

ACROSS

- 1 Treats seawater, perhaps
- 8 Certain Grammy nominee
- 15 Look closely at
- 16 One getting away
- 17 WWII bigwig
- 19 Justice Kagan
- 20 Oscar winner as Elizabeth II
- 21 Uncool one
- 22 Animal friend
- 23 Pitfall
- 27 Shingle letters
- 28 Down for the count
- 31 Scolding sound
- 33 Soccer cheer
- 34 Conical dwelling
- 36 Serviceable
- 38 Boss at an adolescent mag
- 43 Literary device
- 44 Boston's airport
- 45 Fiction course, for short
- 46 Nautical direction
- 49 Lo-mein cooker
- 50 Courtroom VIPs
- 53 Stay fresh
- 55 Monopoly quartet: Abbr.
- 57 Engrossed
- 58 Old Testament prophet
- 61 Shakespearean compilation
- 62 Casino staffer

- 66 Thwarted
67 Hectic routine
68 Fencing phrase
69 Accumulated
DOWN
1 Presidential oath verb
2 Drove out
3 Frugal ones
4 Touch up
5 Simpsons character
6 Blaster's buy
7 Clothes line
8 Wish undone
9 Heads off
10 Window insert
11 Cologne feature
12 Lord's Prayer opening
13 Largest US union
14 Harden
18 Split apart
24 One-sided contest
25 Besides that
26 Look closely
28 Tanzania neighbor
29 Withdraw, with "out"
30 Poor grade
32 First film on rolls
34 Midmorning
35 Reef predator
37 Five-spot



- | | |
|------------------------|------------------------------|
| 38 Tie material | 54 Ship of 1492 |
| 39 Pennsylvania port | 56 Japanese honorific |
| 40 Go to the polls | 57 Crowd clamors |
| 41 In this day and age | 59 To-do |
| 42 Self-worth | 60 Queen of Olympus |
| 47 Starting to unravel | 61 Greek omelet ingredient |
| 48 Transistor ancestor | 62 "Little word" in charades |
| 50 Cotton Bowl site | 63 Carried the day |
| 51 For each one | 64 Custard base |
| 52 Salted away | 65 Hydroelectric project |

Sudoku

Solution, page 12

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

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 12

22+		3÷		24×	
		5×		15×	
12×			2−		1
	6×			10×	
	12×		5		24×
5		36×			

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.

[illegible]



by Jorge Cham



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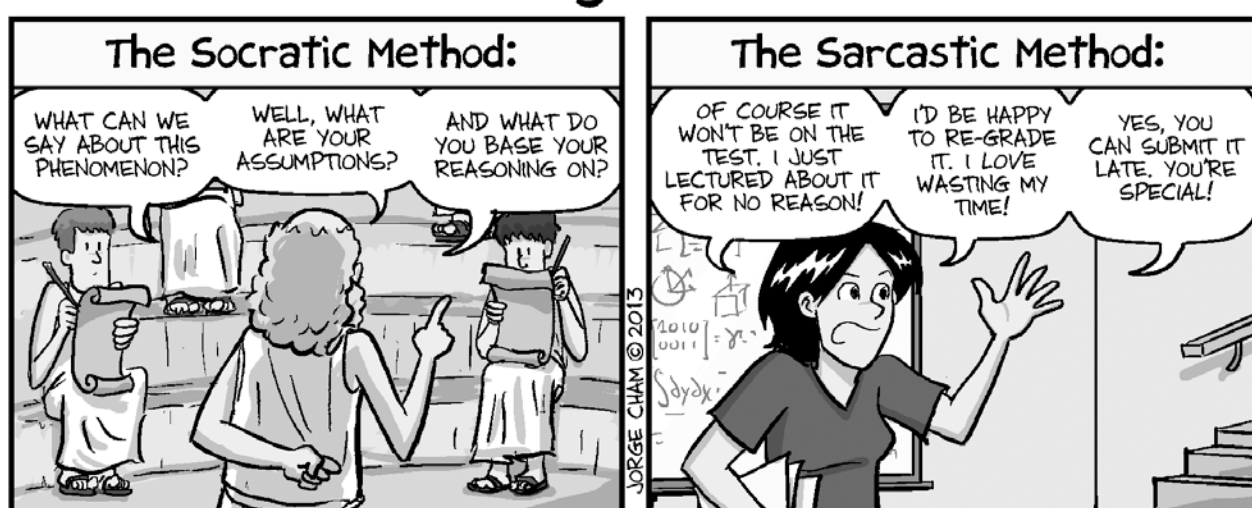


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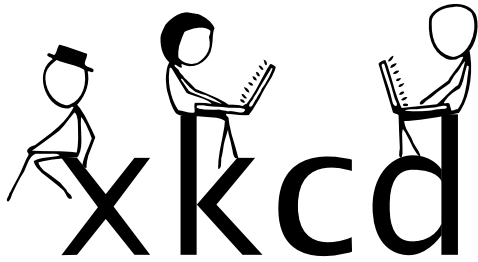
Teaching Methods



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A WEBCOMIC OF ROMANCE, SARCASM, MATH, AND LANGUAGE

by Randall Munroe

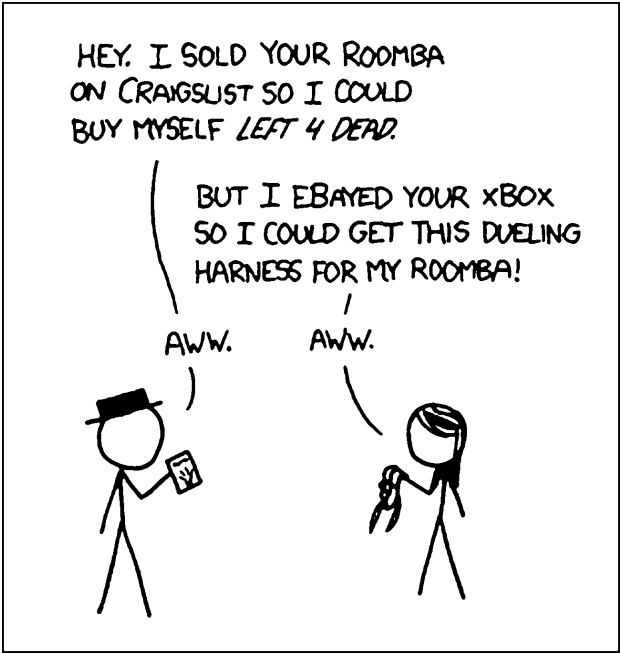
[1260] LD50



THE LD₅₀ OF TOXICITY DATA IS 2 KILOGRAMS PER KILOGRAM.

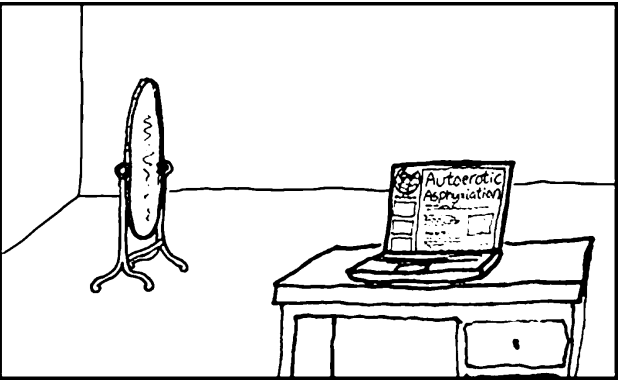
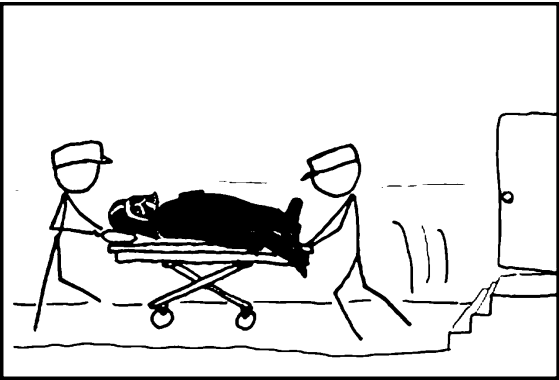
The dose is much lower when administered orally. We're still trying to get the paper into the needles for subcutaneous injection.

[506] Theft of the Magi



Every Roomba needs a dueling harness.

[682] Force



Force-choking the chicken.

Techdoku II

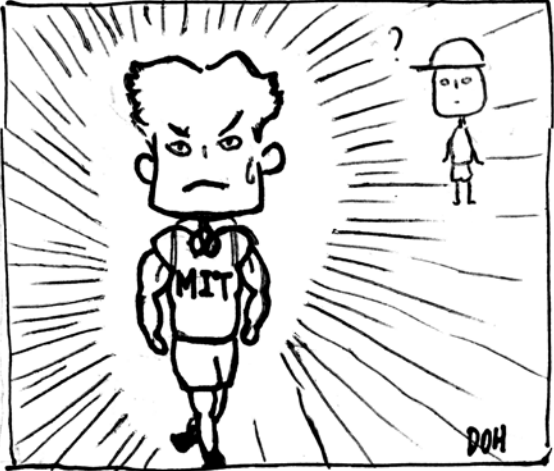
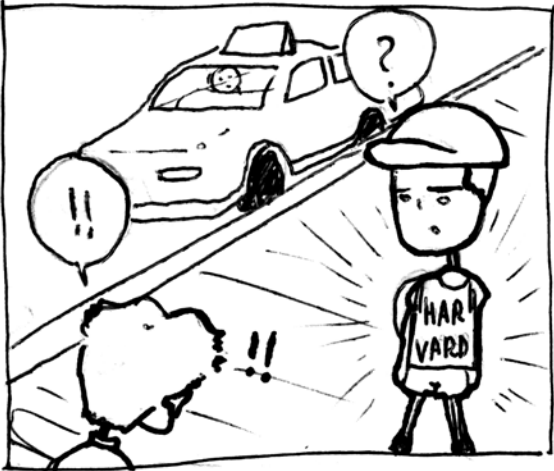
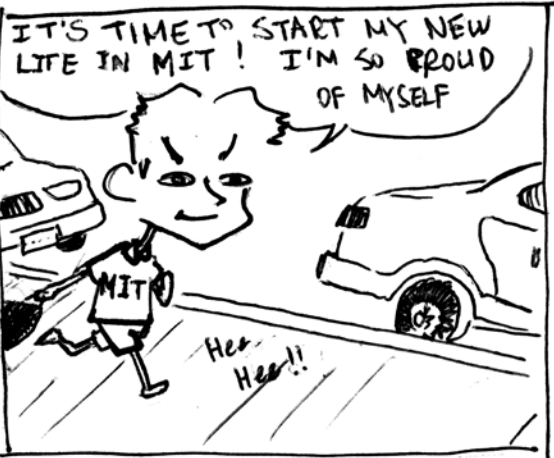
Solution, page 12

6x		72x		30x	
	2			9+	
120x			6x		
10+	5x		6x		4
	12+		5-		1-
3		60x			

SKETCHY

by Dohyun Lee

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THEATER REVIEW

MIT Musical Theater Guild's *Avenue Q* gives you some comic perspective

As an Asian-American, I was concerned

Although agonizing over job prospects is perhaps more relevant for liberal arts graduates of the college up the road, everyone can find a moment they relate to in this musical. From relationship troubles, to dealing with homosexuality, or even to moping inside your room, it's better to laugh at your issues than to be depressed by them — and this production of *Avenue Q* does a good job of encouraging you to do just that.



JAX KIRTLEY

Rod (Andrew W. Koche '14), Nicky (Holly Constant and David Wright), Gary Coleman (Chamille J. Lescott '16), Christmas Eve (Thao Nguyen), and Brian (Josh Cough) in *Avenue Q*.

arts@tech.mit.edu

What your MITID can do for you

Exploring the artsy side of Boston

**By Grace Young
and Angelique Nehmzow**
ARTS EDITORS

Your MIT ID can get you free or heavily discounted admission to nearby arts venues. The Council for the Arts at MIT gifts these memberships and discounts as a way to broaden students' exposure to and appreciation for the arts. The following is a list of the places where you can flash your card. In addition, you can use it to check out museum passes from Hayden Library for guests in town.

So, even if you're excited about classes and all the activities taking place on campus, don't forget the whole of Boston and Cambridge is right at our doorstep, and is well worth exploring!

Museum of Fine Arts (MFA)

If you only go to one place on this list, go to the MFA! Your MIT ID gets you in for free. The museum houses a fantastic permanent collection of drawings, paintings, photographs, sculptures, furniture, and more, dating from ancient Egypt to the present era, from all around the world. You won't be able to see everything in one day; honestly, you could spend an entire year there.

The MFA also has well-curated temporary exhibitions, so there's always something new to see, and they also offer film screenings, concerts, and lectures. As a bonus, there are three quaint cafes in the museum, perfect for meeting with friends or catching up on a reading assignment.

Isabella Stewart Gardner Museum

Again, your MIT ID gets you in for free. This unique museum, built to emulate a 15th-century Venetian palace, hasn't changed since opening in 1903, at the dying request of its founder, art collector and philanthropist Isabella Stewart Gardner.

The “old” wing features paintings, sculptures, and tapestries from the Renaissance through early 20th century, while the “new” modern wing houses special exhibits and a cute restaurant. “Gardner After Hours” is a fun

time to visit, when the museum stays open late and has events geared towards young adults.

Fun fact: The museum is infamous for a 1990 break-in, where thieves disguised as police officers stole thirteen paintings.

**Institute of Contemporary Art
(ICA)**

You'll get in free! You should expect to see some bizarre works at this place, but it's worth a visit for those who can handle modern art. The museum has a performance center with windows overlooking the harbor — so even if a performance is a bit "out-there," you can appreciate the view.

**Boston Symphony Orchestra
(BSO)**

This one isn't free, but the fee is more like a token of appreciation. For just \$5 you can get tickets to as many BSO performances as you want!

First, you need to buy the \$5 BSO College Card, which is valid for the year, and which is available at the BSO Ticket Office, and at MIT Copytech in the basement of Building 11 (11-003). Then, pick up your ticket from the box office the week of the performance you want to see. Beware, some performances won't let you use the College Card, but most do. Also, the card will only get you one ticket — if you want to go with a friend and get seats together you have to go pick up tickets together.

Generally, it's a good idea to call before venturing to the box office (at 301 Mass. Ave, Boston, a short walk over the bridge), because sometimes they sell out of the tickets reserved for College Card holders.

Photographic Resource Center

This is an independent non-profit organization at Boston University, and — you guessed it — MIT students can get in for free. It showcases a new photography exhibit every few months. The current exhibit is on the identity and photographic portrait. MIT students are also eligible to participate in their annual exhibition.



COURTESY OF THE MUSEUM OF FINE ARTS

The exterior of the Art of the Americas Wing at the Museum of Fine Arts.

Harvard Art Museum

The museum is fantastic, but closed until fall 2014 for renovations.

Radius Ensemble

The ensemble puts on an eclectic concert about twice a semester in Harvard Square, and MIT students can get free tickets. On Oct. 5, they will play a mix of pieces for flute, oboe, viola, cello, harp, clarinet, and cello. On Nov. 23, the ensemble will be playing Czech-classical music fusion and jazz-classical fusion.

The Catalyst Collaborative at the Central Square Theater

MIT students get discounted tickets to performances by the collaborative, which aims to present science to the public through the theater. Their next show, *Silia*, on show in April and May, is about a climatologist, an Inuit activist, and two polar bears struggling to adapt to the rapidly changing environment.

**Boston Chamber Music Society
(BCMS)**

MIT students get free or discounted tickets to BCMS performances. BCMS performs

classical masterpieces, either at the Sanders Theater on Sunday nights in Harvard Square, or at MIT's Kresge Auditorium in December and January.

Boston Modern Orchestra Project (BMOP)

This group performs exclusively new music, but is otherwise fairly mysterious. They will have performances this November, January, and May, but further details on the group and tickets haven't been released yet.

The MIT Museum

Last but not least, your MIT ID gives you access to MIT's own museum, which is just up Mass. Ave. The MIT Museum houses interesting exhibitions about MIT's history and ongoing research, particularly related to artificial intelligence, and has an awesome collection holograms and kinetic sculptures. Its temporary exhibits tend towards the robotic, technological, and photographic. The next exhibit is *Stanley Greenberg: Time Machines*, which opens on Sept. 13.

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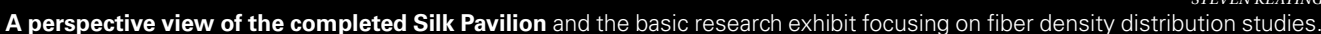
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An ethereal silken globe

By Kristen Sunter

To build the Silk Pavilion, 6500 silkworms were placed at the bottom of the thread scaffold, which was laid out by a computer-numerically controlled (CNC) ma-

The research behind the Silk Pavilion began in September 2012 with several small experiments on silkworm spinning behavior, to determine whether the worms optimized their spun structure to follow lines of tension, and to study the

The Silk Pavilion is not the first work of art to rely on insects for construction. Steven Kutcher, an entomologist who once created a scene for Steven Spielberg involving flies walking through ink and leaving prints, made a series of paintings with insects such as



beetles walking on paper with paint on their legs. Earlier, in the 1980's, French artist Hubert Duprat used caddisfly larvae to create jewelry-like art. Caddisfly larvae naturally use materials found in their habitat, such as pieces of wood, to construct protective tubes around themselves. Duprat placed caddisfly larvae in tanks with flakes of gold and precious and semiprecious stones with which they created ornate gold tubes.

The silkworm research will continue with further experiments. “We are always looking at new or different biological systems that we might be able to work together with as a more collaborative process as science and technology are merging,” said Jared Laucks G, a member of the Mediated Matter group. Future research in the Mediated Matter group will also focus on “swarm printing”.



MIT Hillel

Third iteration of GradRat revealed to the public

Includes unique degree shank and other features painstakingly reviewed and chosen

GradRat, from Page 1

stump, and a ribbon and shield that pays tribute to MIT Police Officer Sean Collier.

The Degree Shank is a unique feature of the GradRat; the ring serves students enrolled in different programs and different graduating years. Each course has its own symbol ingrained in a part of its stu-

dents’ rings.

According to Katia Shtyrkova G, chair of the GradRat ring committee for the past two years, a lot of hard work went into the new design. The Ring Committee sent out surveys in January to solicit input on the important features of graduate life to be referenced on the ring. Forty-four surveys were also sent to departments in order to design

the unique symbols on the Degree Shank.

Many graduate students considered ‘IHTFP’ too ‘undergrad’ to be on the GradRat.

Controversies arose during the design process. The symbol for Dropbox, considered one of the most essential tools in graduate life,

was included on the ring. In spite of its popularity, some deemed

it inappropriate to include a corporation’s logo on a school ring. Shtyrkova also mentioned that while the popular refrain of “IHT-

FP” seems to capture the attitude of many graduate students, many considered it too “undergrad” to be on the GradRat. The acronym was not included in the ring’s design.

Although the final design of the ring was completed in July, it was not unveiled until yesterday evening. The ring, with all its hidden details, is now available to purchase online at <http://gradrat.mit.edu/>.

Former Biotech investor faces four years in prison

Following a tumultuous career and large debts, David Blech convicted of securities fraud

Blech, from Page 1

“There’s no question that if I had been in a coma for the last 20 years, I would wake up a billionaire today,” Blech, 57, said.

Blech is to report to federal prison in Fort Dix, NJ, having pleaded guilty to manipulating stock of two biotech companies as part of his comeback attempt.

Besides what his downfall means for his personal life, it reflects the maturation of the biotechnology industry from its get-rich-quick days, when someone like Blech, a music major with no scientific training, could make a difference with a few million dollars. Now billions are invested by funds managed by teams of doctors and scientists.

Blech (pronounced black) is to report Sept. 18 to federal prison in Fort Dix, N.J., having pleaded guilty to manipulating the stock of two biotech companies as part of his latest comeback attempt. He also pleaded guilty to securities fraud in 1998, but avoided prison.

In an interview at his New York apartment, Blech said he hoped to be remembered for helping to create an industry that has saved lives.

He said his reckless behavior stemmed in part from bipolar disorder, which left him at times feeling invincible and unable to restrain himself.

“I didn’t know how to say no to a deal,” he said.

Critics over the years have said

Blech was merely an aggressive stock promoter who got lucky. They note that Celgene and Alexion did not become successful until long after Blech was associated with them.

But Blech still has supporters. Nick Arvanitidis recalled that in 1990, his company, Liposome Technology, was desperate for cash. Other investors spurned him, he said. But “David just wrote me a check for \$3 million the same day I went to see him.” That allowed Liposome to survive and develop Doxil, an important cancer drug.

Jeffrey J. Collinson, a venture capitalist, said Blech saved several companies. “It’s painful to hear what happened and how he got into this position,” Collinson said. “It’s a sad story.”

It is also an unlikely story. In 1980, Blech was working as a stockbroker while trying to become a songwriter. That fall, biotechnology pioneer Genentech went public and its share price doubled the first day.

“I can do that,” Blech, then only 24, told his father, a rabbi who was also a stockbroker. Blech then called his brother, Isaac, who was working in advertising, and said, “Quit your job, we’re starting a genetics company.”

Sitting around the kitchen table,

the three came up with a name — Genetic Systems. Then they had to figure out what the company would actually do.

An article in a science magazine led them to Robert Nowinski at the Fred Hutchinson Cancer Research Center in Seattle, who was doing research on a new technology involving something called monoclonal antibodies.

The Blechs promised Nowinski \$200,000 and then raised \$1 million from others. Half a year later, Genetic Systems went public and the Blechs’ stake was worth \$10 million. In 1986, Bristol-Myers Squibb acquired Genetic Systems for nearly \$300 million, and the Blechs were richer still.

David and Isaac Blech went on to form several other companies, some of which ultimately failed. They attracted top scientists, directors and advisers by offering them stock and a chance to get rich. The companies were often taken public quickly, so the Blechs and other early shareholders could realize a return.

Things began going wrong around 1990, when Blech wanted to expand while his more cautious brother wanted to take a hiatus. The brothers had a rancorous split and have essentially not talked since.

Blech started D. Blech & Co., which underwrote stock offerings. When biotechnology stocks he was involved with weakened, he tried to prop them up by buying more shares, using \$65 million in borrowed money. When creditors started calling in the loans, a desperate Blech started engaging in

sham trades to make it look as if he was getting his house in order.

D. Blech & Co. collapsed on Sept. 22, 1994. Emotionally broken, Blech checked himself into a hospital psychiatric ward for a brief stay. His wife filed for divorce. His remaining holdings — including a stake in Alexion that would be worth more than \$1 billion today — were sold off for about \$40 million to pay creditors.

But instead of going to prison, Blech was sentenced to five years probation because of his bipolar disorder and his cooperation with the government.

The \$15 million in trusts for his children no longer went so far. Companies did not want financing from a felon.

“God forbid you should ever come back to this courtroom,” Judge Kevin T. Duffy said at the sentencing in 1999. Blech “solemnly pledged” that he would not.

By the time his probation ended, his old formula would not work. The \$15 million or so he had sheltered in trusts for his children no longer went so far. Startups could no longer go public just because they had “genetic” in their names. And companies did not want financing from a felon.

So Blech turned to hard-pressed penny stock companies. Government investigators said he reverted to past behavior, trading through more than 50 nominee accounts in the name of his new wife, other

relatives, even a yeshiva run by a cousin.

In court proceedings and documents, Blech said he was so convinced that Pluristem Therapeutics, an Israeli stem cell company, would be successful that he spent \$6 million, some of it borrowed, on its shares. In 2007, he said, he had to sell the shares to repay the loan, but feared that such a huge sale of a thinly traded stock would cause the price to collapse.

So, according to prosecutors, Blech sold shares through some nominee accounts and bought shares through others, gradually re-

ducing his holdings while making it appear there was an active market for the stock.

Prosecutors said the scheme allowed him to sell the shares for \$1.2 million when he might otherwise have gotten nothing. It accused Blech of a similar plot involving Intellect Neurosciences.

In 2012, Blech pleaded guilty to two counts of securities fraud. Once again he asked for mercy, citing his bipolar disease, his contributions to medicine and the hardship a prison sentence would impose on his family, including an autistic son.

But the judge, Colleen McMahon, said the time for leniency had passed.

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Fossil fuels are the new tobacco: a divestment focus

Push renewed for college endowments to divest themselves of holdings in oil companies

By Randall Smith
THE NEW YORK TIMES

In the 1980s, it was South Africa. In the 1990s, it was tobacco. Now fossil fuels have become the focus of those who would change the world through the power of investing.

A student movement has gathered momentum at more than 300 campuses over the past year. Members have encouraged college and university endowments to divest themselves of their holdings of companies in the fossil fuel business to avoid profiting from the release of carbon associated with the risk of global warming.

While the efforts have gained some traction, they have also met strong opposition from critics who favor the traditional proxy-voting process of engagement, in which institutional investors try to prod corporations to change their practices, with divestiture a last resort.

The push also comes as some big institutional investors are paying more attention to broader programs devoted to environmental, social and corporate governance issues.

For example, the California Public Employees' Retirement System has a sprawling program that includes 111 initiatives. They include proxy voting, investing in funds devoted to green energy or to urban and rural areas "underserved" by investment capital, and an annual list of underperforming companies. CalPERS is working to integrate such issues throughout its \$264 billion fund, including research to determine how such factors affect risk and return.

In July, Harvard's endowment, the nation's largest at \$31 billion, hired the leader of that research initiative, Jameela Pedicini, as vice president for sustainable investing, becoming only the second top college after Stanford to have full-time endowment employees devoted to such issues.

Pedicini's appointment was seen in part as a response to two student groups that have been calling for more action. The Responsible Investment at Harvard coalition has been pushing for "more transparent and comprehensive" environmental, social and governance

efforts throughout the endowment. The other, Divest Harvard, said in April, "By sponsoring climate change through our investments, our university is threatening our generation's future."

The campus divestiture campaigns have been spurred by a group led by the environmental activist William McKibben, who has also battled the Keystone XL oil pipeline. The McKibben group has urged the sale of the 200 companies with biggest carbon reserves globally, including Exxon Mobil and Chevron.

Officials at Harvard and many other endowments are resisting the calls for full divestiture in favor of other means of persuasion.

The push to rid portfolios of fossil fuel stocks echoes earlier movements by endowments and pension funds in the 1980s to sell stocks of companies doing business with South Africa because of its apartheid policies and in the 1990s to sell tobacco stocks because of the health hazards posed by smoking. Harvard, Stanford and CalPERS all sold their tobacco stocks around that time.

A few small colleges have chosen to divest themselves of their fossil fuel stocks. Unity College in Maine, which specializes in environmental science and has a small \$14.5 million endowment, this spring completed a move to a lineup of 33 exchange-traded sector funds that minimize exposure to fossil fuel stocks. "If we don't deal with climate change now, we consign our grandkids to an unlivable planet," said Unity's president, Stephen Mulkey.

But officials at Harvard and many other endowments are resisting the calls for full divestiture in favor of other means of persuasion.

When three student members of Divest Harvard met in February with Robert D. Reischauer and Nannerl O. Keohane, two members of Harvard's governing board who serve on a shareholder responsibility panel, Reischauer cautioned that advanced economies were highly energy-dependent and that divest-

ment would not change the basic supply-demand equation, according to the students.

Reischauer added that the companies were unlikely to respond because divestiture by Harvard would not affect the price of their stocks or their products, said another person briefed on his remarks. He acknowledged that Harvard could sell the few carbon stocks it owns directly without "a major impact" on its endowment performance; such stocks account for only \$30 million of the fund's \$1 billion in direct U.S. stock holdings, the students esti-

mate. But Reischauer warned that selling such stocks from the endowment's large investments in hedge funds, mutual funds and other pooled vehicles could be costly, hurting returns.

At a meeting in April, Keohane argued that the primary purpose of the endowment was to maximize returns, that divestiture wasn't effective and that a better way to hold fossil fuel companies accountable would be through Harvard's proxy votes as a shareholder. Yet Harvard does not disclose the names of outside managers who run one-third of its money, so students do not know many of its holdings.

A Harvard spokesman, Kevin Galvin, added, "The university has traditionally maintained a strong presumption against divesting stock for reasons unrelated to investment purposes," preferring that the college make its "distinctive contributions to society" through its "research and educational activities."

Christianna Wood, a trustee of Vassar College who advocates pursuing social and governance goals through engagement and proxy voting, said that when she oversaw global stock investments at CalPERS from 2002 to 2007, outside consultants estimated the costs of the fund's South Africa and tobacco stock sales at \$1 billion each. She said by divesting, colleges will "not

only lose money, they will lose their voice" on such issues. She predicted that the movement would fail at most schools.

Administrators at Bowdoin and Swarthmore have cited such potential costs in responding to calls for divesting, and Middlebury and Vassar have decided not to divest. Middlebury cited the difficulty, costs and risks. Vassar's president, Catharine Bond Hill, said students "have lots of proactive ways to engage policy makers" on climate change, and divesting themselves of certain stocks could hurt endowment returns without addressing the causes of climate change.

Wood said the proxy process had produced gains over the last decade in shareholder voting rights and the election of directors. For example, she said there was a big victory this year when shareholders successfully urged Continental Resources, an Oklahoma oil and gas company, to curb its gas emissions in North Dakota. But she acknowledged that getting the oil giants to respond to proxy proposals on greenhouse gas limits would be more difficult.

Stanford's investment responsibility policy, adopted in 1971, addresses the risk of "substantial social injury" in categories including diversity, environmental sustainability and human rights. For example, Stanford has voted for proxy resolutions asking companies to report on their efforts to avoid using minerals whose sale finances human rights abuses in Africa. Nevertheless, Stanford does not routinely disclose specific proxy votes as Harvard does.

John F. Powers, chief executive of Stanford Management, which runs the endowment, said the school's process for evaluating the call for fossil fuel divestiture might take the better part of the coming academic year. He said selling tobacco stocks did not hurt Stanford's performance much because they were "a narrow universe" and "plenty of other stocks went up."

Harvard, Stanford and the other universities whose endowments pursue environmental and social goals are in the minority. John S. Griswold of Commonfund, which tracks endowments, says one-fifth or less of endowments have such programs. He says some endow-

ment managers prefer to "focus on producing the best returns they can," and "don't want to be distracted" by other issues.

Even the proxy route may be losing some of its influence.

Jon Lukomnik, a corporate governance consultant, said college endowments' ability to use the proxy process had been curtailed by their increased holdings in alternatives like private equity, venture capital, real estate and hedge funds. That trend has left "an ever decreasing portion of their assets" in publicly traded stocks.

At Harvard, the number of proxy proposals on social issues that its shareholder responsibility committee has considered has fallen from a recent peak of 157 in 2004 to 41 in 2012. And the committee's most recent annual report shows the limits of the tactics against some energy giants.

In 2012, Harvard voted in favor of a climate change call for ConocoPhillips to set targets for reducing its greenhouse gas emissions. But the proposal, which this year received a 29 percent vote, has failed repeatedly since 2008. "They have basically brushed it aside," said the Rev. William Somplatsky-Jarman of the Presbyterian Church (USA), the measure's sponsor. Harvard has also voted for such a proposal at Exxon Mobil, which this year received a 27 percent vote.

While a 20 percent vote is considered significant, "the current approach where we see incremental progress is clearly insufficient," said Andrew Logan, an oil and gas specialist at Ceres, a sustainability advocacy group.

At CalPERS, Anne Simpson, director of an 18-member global governance team, says she is "flattered" that Harvard recruited one of them. She said CalPERS, which manages 80 percent of its assets internally, also prefers engagement to divesting.

"We're such a big owner, we can't find a tidy corner of the market of complete purity and virtue," she said. "You've got to get down and dirty to deal with this. We visit companies. We meet with directors. They know we're not going away. Walking away from that table is really not going to help."

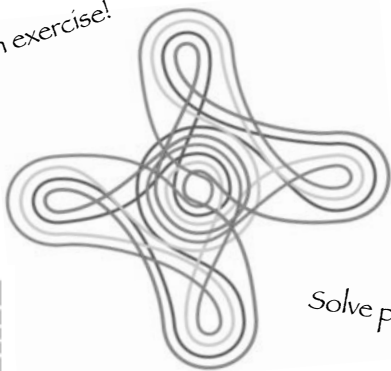
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Solution to Crossword
from page 5

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E	N	G	A	R	D	E		A	M	A	S	S	E	D	

Solution to Techdoku
from page 5

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

Solution to Sudoku
from page 5

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

Solution to Techdoku II
from page 7

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

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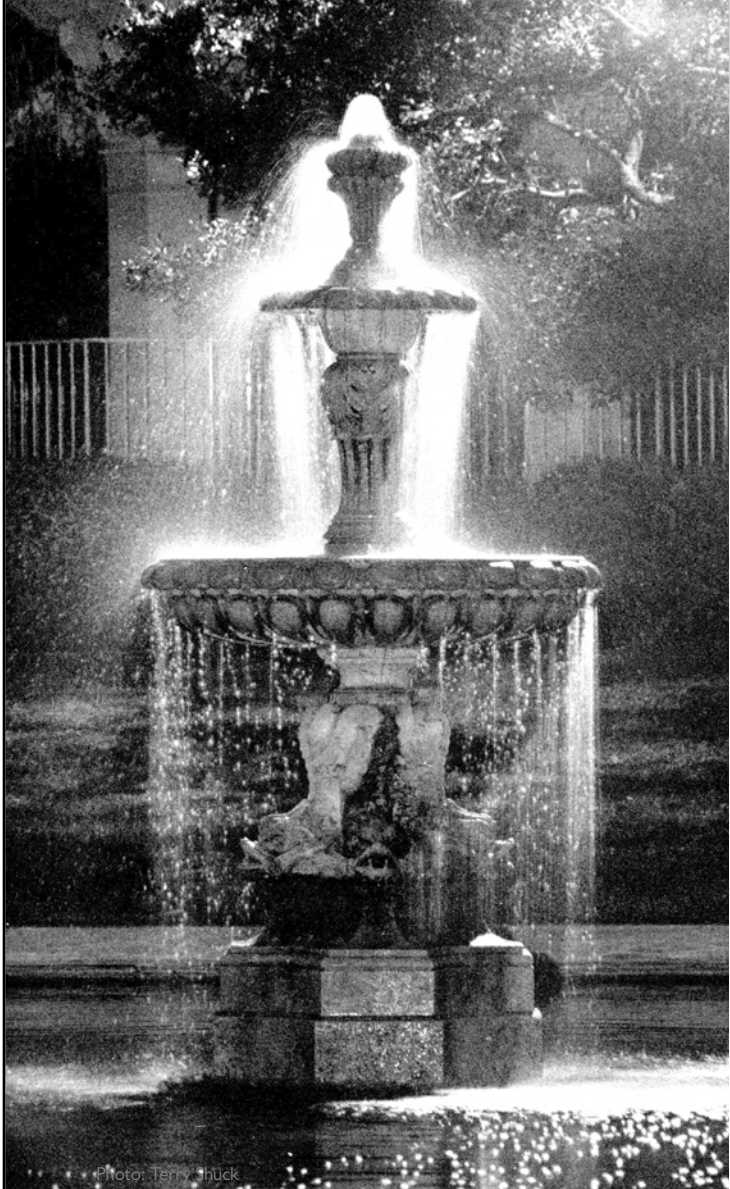
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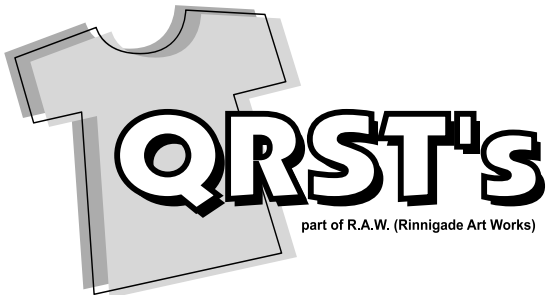
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Swartz, from Page 1

working on a bill known as Aaron's Law aimed at reforming the CFAA.

Should MIT strengthen its activities in support of open access to scholarly publications? It is not known what Swartz intended to do with the millions of journal articles he downloaded, but he was a consistent advocate of open access.

What are MIT's obligations to members of our extended community? Aaron Swartz had previously worked at the World Wide Web

Consortium, and his father is affiliated with the MIT Media Lab. However, Swartz was not an MIT student, which was one reason MIT did not take a public position on the Swartz case, according to the report.

How can MIT draw lessons for its hacker culture from this experience? The report's authors ask whether "a change in the institutional climate" and "a concern for minimizing risk" bode ill for the "culture of creative disobedience."

The turnout to the announced

gatherings will tell whether the report's picture of apathy on the part of MIT students towards the Swartz case has changed.

"I would like to make sure that all of us have a much better understanding of what transpired," Reif told *The Tech* in August. "We're dealing with a situation that involves not just creativity, innovation, but also intellectual property and the rule of law. That's a very important conversation to have right now."

—Leon Lin

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Benfica and PSG expected to easily lead Group C

Bayern Munich and Manchester City should take Victoria and CSKA in Group D

Champions League, from Page 16

to Borussia Dortmund, which may make it difficult to come out on top.

German teams on club and international level are always top contenders because they have the tactics, structural organization and discipline needed to succeed. Bayer Leverkusen is one such German team and should definitely be feared. However, I still do not think that they have what it takes to advance to the next round.

The last team of the group is the San Sebastian based Real Sociedad. Some of you may be surprised when you hear the name, because it has been a long time since Real Sociedad has been to the European stage. However, their two wins over French side Olympique Lyonnais showed that they are no push overs, and they boasted some unbelievable goals. Even so, this squad is still quite young and lacks the experience needed to succeed. I am sure they will bring excitement to the group stage but advancing is another story. Even if they fail to advance, I believe they will be back in the years to come.

Although Manchester United

may not be posting the scores their fans are used to, I believe Moyes' side will manage to pull this group through. The second team to advance will probably be Shakhtar, but with the three teams seemingly equal on paper, I'd say that it will be hotly contested.

Group B: Real Madrid, Juventus, Galatasaray, Copenhagen

I believe that this is one of the more straightforward groups. Real Madrid and Juventus will have enough in them to power through to the knockout stages and Turkish team, Galatasaray, will ease their way into third place to qualify for the UEFA Europa League. Real Madrid's summer transfers have been sensational, with the addition of Malaga-star Isco and Tottenham-star Gareth Bale, to name a few. They have also parted ways with Jose Mourinho and have brought along Carlo Ancelotti. This managerial change, along with the player transfers, will only increase Madrid's power. However, it is hard to predict what Madrid will do, as they are also capable of extremely poor soccer performances. Galatasaray nearly caused a huge upset last year in the quarterfinals after shocking the Spanish side with an extremely explosive performance

in the match in Istanbul.

Juventus have all the makings of champions, and they could have advanced to the finals last year if they hadn't run into Bayern Munich in the quarterfinals. Whether it is the quality of their goalkeeper (Buffon), defenders (Lichtensteiner, Barzagli, Bonucci, Chiellini), midfielders (Pirlo, Vidal, Pogba) or forwards (Llorente, Tevez, Vucinic, Quagliarella), Juventus will be a force to be reckoned with later on in the competition as well.

Galatasaray has re-emerged onto the European stage with players such as Drogba, Sneijder, Chedjou, Burak, Selcuk and Muslera. They managed to make it to the quarterfinals last year, only to be eliminated by Real Madrid. If they've learned anything from those matches, they may still make a run for second place in the group, but maintaining third seems almost guaranteed. The fact that they had a strong preseason (beating Arsenal, Porto and tying with Napoli and Malaga) shows that they are ready for more European football.

Copenhagen was unlucky to draw such a group. Their chances of making an impact seem quite low, especially considering their

recent poor performance in the Danish League. They'll need to find some momentum to face off against Juventus, Real Madrid and Galatasaray.

Real Madrid and Juventus will pass onto the next round with Galatasaray close behind them in third and Copenhagen will be left in fourth place.

Group C: Benfica, Paris Saint-Germain, Olympiacos, Anderlecht

Another fairly straightforward group, Benfica and PSG will rise above their opponents, while Olympiacos and Anderlecht will be dueling for the third spot in the group. Benfica had a heart-breaking and dramatic season last year by losing the league, the league cup, and the UEFA Europa League with goals conceded in the 90+ minutes. They'll be looking to make up for their losses with their talented squad. PSG is the high-roller and their summer acquisitions only made the team stronger. Letting Sakho go might have been a questionable move, but it will hardly put a dent in their CL campaign, at least for the moment. Olympiacos and Anderlecht are just not up to the standards of the first two teams, so they will have to accept their fates and try to earn a

spot in the Europa League.

Group D: Bayern Munich, CSKA Moscow, Manchester City, Viktoria Plzen

Group D will see last year's champions pitted against Manchester City. The two teams should be happy with the draw as CSKA Moscow and Viktoria Plzen are not up to their caliber and it would take something close to a miracle to not have Bayern and City advance to the next round. Bayern Munich played exemplary soccer last year and they now have Pep Guardiola to guide the team further. Of course, there will be a period in which the team will get accustomed to Pep's tactics, but CSKA and Viktoria will not be able to take full advantage of that moment. They will likely start off doing well, but end up going to the UEFA Europa League, just like BATE Borisov did last year. City's manager change will also reflect positively on the team and Pellegrini will have his side advance to the next round, preventing a second early elimination. CSKA will have enough talent, especially with attackers such as Seydou Doumbia and Ahmed Musa, to see off Viktoria Plzen and retain third place in the group.

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Manchester United, Real Madrid expected to lead in their groups

change for soccer-lovers all over the world. It waits to be seen if his replacement, David Moyes of Everton, has what it takes to manage the giant that is Manchester United. His results so far were unable to bolster confidence, as he tied at home against Chelsea and lost to Liverpool away, leaving fans hoping that the new manager just needs time to grow accustomed to his team. However, with Champions League soccer just around the corner, he needs to have his side produce goals and victories immediately.

Shakhtar Donetsk had a good run last year, only to be eliminated by finalists Borussia Dortmund in the round of 16. The manager of the Romanian side, Mircea Lucescu, is an incredible manager and I'm sure his team will be looking to advance to the next round, perhaps even as group leaders. I would say that they have the manager and talent necessary. However, the team has lost some important players as Fernandinho moved to Manchester City, Wilian to Chelsea and Mkhitaryan

Champions League, Page 15

On paper, Manchester United seems like they will be in control in this group, but soccer is not won on paper and what teams put forward on the pitch is what truly matters. Manchester United has the same skilled group of players, but there is one major change: they are missing their previous manager Sir Alex Ferguson. For as long as I have been watching soccer, I have never seen a Champions League season without Sir Alex, so this will be a massive

Briggs Field, 2 p.m.

Rodriguez scores two, propelling the Engineers

DAPER STAFF

Worcester State started the first half off very strongly by scoring its first goal just 11 minutes into the game. The goal was made at the foot of Shelby Archer, who shot the ball from the right corner of the field, firing it clear over the head and outstretched arms of goalkeeper Lauren S. Ullmann '17. The Engineers wasted no time evening the score, however; at 16:23,

Just five minutes later, Rodriguez stole the ball from the opposing team's keeper and shot it at the goal, hitting the post with such power that it rolled into the net before the keeper could knock it free, giving the Engineers the 2-1 lead that they would hold onto for the remainder of the game. MIT took seven more shots at net throughout the remaining 30 minute half, with three of them being saved by keeper Jillian Witkowski. It looked as if MIT might score its third goal of the night at the 36 minute mark when Amma Okwara '16 swept the ball up and fired it at the keeper, who knocked the ball out of harm's way with the tips of her fingers.

the intensity in the second half, firing 19 shots at goal throughout the entire second half, 13 of which were saved by the goalie. Worcester State was able to break through MIT defense a handful of times, but were thwarted each time by goalkeeper Tamar N. Weseley '16 during her stint in the net. With neither team able to get close enough to the opposing goal, the game ended with an MIT victory.

MIT outshot Worcester State 35-12. Ullmann and Weseley each spent 45 minutes in net, with Ullmann making two saves and allowing one goal and Weseley making three saves. Witkowski made an impressive 19 saves throughout the entire game.

The Engineers will host their second of three consecutive home games on Saturday, Sept. 7, facing Emmanuel College at 11:00 a.m..

Numerous teams traveled to national championship tournaments this past year

SPORTS EDITOR

People don't generally think of MIT as an athletic powerhouse. What they don't know is that in addition to 33 varsity sports, MIT has 35 club sports teams — and they're really good. Last season, many club teams made it to the national championships in their sports, and individuals from each team excelled. Here are last season's highlights from some of MIT's club sports teams.

England Wide Collegiate Rugby Conference Regional Championships. They fell to third-ranked Hartford University, but ended the season with the fewest points scored against them during the regular season.

The Cycling team was named USA Cycling's Collegiate Club of the Year in 2012, and completed their 2012-2013 season by taking first place in both the Division II Track and Road National Championships.

The MIT Cheerleading squad took fourth place at the National Cheerleading Association championship in Daytona, Florida. This was the team's first appearance at the national competition, commendable seeing as they only began learning routine choreography over IAP.

The Wrestling team sent six athletes to the National Collegiate Wrestling Association Division II National Championship in 2013. The team took first place at the event, and Ryan J. Madson '13 was named an All-American for the fourth time. Madson also set the MIT record with 145 career wins.

Sport Taekwondo

In addition to 33 varsity sports, MIT has 35 club sports teams — and they're really good.

This past season, the Table Tennis team organized three open tournaments. Additionally, Alex C. Wang '14 made earned a spot as a singles competitor in the National Championships.

The Women's Rugby team won the Beantown Division III Tournament and attended the New



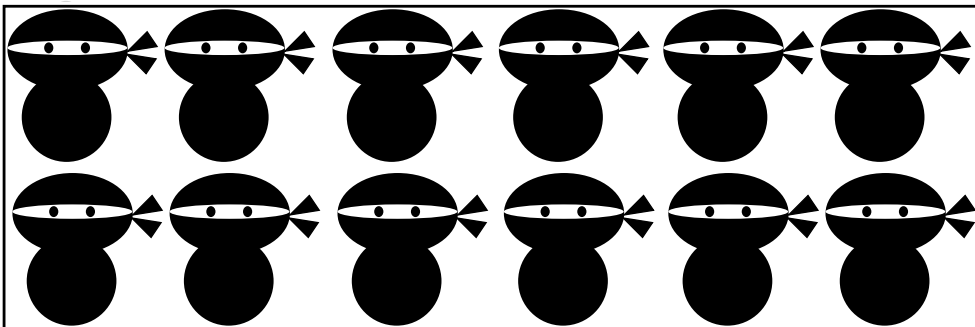
AMANDA DOBSON

The MIT Triathlon club team poses after competing at the Massachusetts State triathlon race in July.

The Sport Taekwondo team attended the National Collegiate Taekwondo Competition this past year and ended up winning second place overall and third in the black belt division. Michelle

W. Chen '14, Erika Lee '13, and Hilary Monaco '12 earned a gold medal in the female team triple while Andrew Mandelbaum G, Daniel Stallworth '14, and Seth Matthew Weinberg G took the

bronze medal in the men's triple division. Additionally, the team finished second place in the Eastern Collegiate Taekwondo Conference behind Cornell University.



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