

Group urges checks on online learning at MIT

Social skills and credit integrity at stake

By Leon Lin
NEWS EDITOR

Concerned about the pace of change brought about by online learning, an Institute subcommittee is now preparing to recommend a “face-time” degree requirement, strong oversight of on-campus MITx experiments, and a “conservative initial approach” to awarding credit for edX classes.

“We’re not against it. Just go slow, and see what’s going to happen,” Professor Susan S. Silbey said of digital learning experiments in MIT classes. Silbey, who heads the anthropology department, is the chair of the subcommittee.

A draft report detailing the committee’s recommendations was presented at a faculty meeting on March 19.

The subcommittee saw “incomparable value” in face-to-face engagement between faculty and students, suggesting that without such interaction, students would struggle to develop social skills like “turn-

taking” and the use of “visual, bodily cues.”

Face-time also helps build community and makes faculty members more approachable, the draft report said.

While encouraging professors to use MITx — a software platform that allows instructors to post videos, text, quizzes, and various other types of modules — in a way that enhances face-time with their on-campus students, the subcommittee expressed a concern that some would use MITx “as a substitute for physical co-presence.” The subcommittee recommended a limit to the number of classes with insufficient face-time that may count toward a degree.

Professor Sanjay E. Sarma, the director of digital learning, said that “pretty much every online experiment that I’ve seen using MITx” actually had the effect of “enriching” interpersonal interaction in the classroom.

MITx, Page 11



DAVID DA HE—THE TECH

Dark clouds of smoke billowed from a two-alarm fire atop E90 in Kendall Square last Friday afternoon. Cambridge firefighters quickly extinguished the fire with no injuries reported.

Sharma and Ndengeyingoma win election for UA presidency

UAP/VP-elect discuss plans, goals for upcoming term

By Tushar Kamath
NEWS EDITOR

On March 21, after weeks of campaigns from three tickets, Shruti Sharma ’15 and Billy Ndengeyingoma ’15 emerged as the winners of this year’s Undergraduate Association elections for president and vice president. In preparation for their upcoming administration, Sharma and Ndengeyingoma have described three overarching themes for their tenure on their campaign website: the MIT educational experience, communication and visibility, and the residential campus of the 21st century.

To achieve the long-term goals stated on their website, Sharma and Ndengeyingoma said they would

look to the Presidential Advisory Cabinet and the Corporation Joint Advisory Committee as “channels of advocacy.” By requesting “transition documents” for each position on the UA executive board, the pair hopes to “ensure a smooth continuity between UA administrations.”

Sharma and Ndengeyingoma said that they would be continuing a number of the initiatives set forth by Sidhanth P. Rao ’14 and Devin T. Cornish ’14, the previous UA president and vice president. Specifically, Sharma and Ndengeyingoma found the “Chief of Staff summit, weekly Institute committee lunches, and semesterly Institute committee policy reports” particularly effective and will maintain these programs in the coming semesters.

During debates and campaigns, all of the presidential candidates touched on the perceived lack of transparency and communication between students and the UA. Sharma and Ndengeyingoma said they would establish or reestablish several UA programs to help address these problems.

“In order to bridge this gap in communication, we are planning on reinstituting the format of presidential summits of the Craighead and Walsh term two years ago,” said Sharma and Ndengeyingoma in an email response to *The Tech*. The summits have not continued during Rao and Cornish’s time as president and vice president.

UA, Page 14

High court weighs patents on software

How to avoid stifling innovation?

By Adam Liptak
THE NEW YORK TIMES

In a case with the potential to reshape the software industry, the U.S. Supreme Court on Monday seemed poised to issue fresh limits on patents for computer-based business methods.

Though the case originated far from Silicon Valley, it has been closely watched as an indicator of how specific or abstract technical ideas can be to become eligible for patent protection. Patent claims over the way such ideas are incorporated into computers, cellphones and other devices have become a challenge for many high-tech companies.

Most of the justices seemed skeptical about extending patent protection to the claimed invention at issue, a sort of computerized escrow mechanism that helps ensure that both sides in a transaction do what they have promised to do.

But given the importance of

the software industry in the information economy, the court also appeared wary of a misstep in announcing a general legal principle. The court’s task, Justice Stephen G. Breyer said, was “to go between Scylla and Charybdis.”

On the one hand, Breyer said, the court should not allow the patent system to stifle innovation.

“There is a risk,” he said, that “instead of having competition on price, service and better production methods, we’ll have competition on who has the best patent lawyer.”

“And if you go the other way and say never” allow software patents, he went on, “then what you do is you rule out real inventions with computers.”

The patents in question, owned by the Alice Corp., outlined steps for mitigating settlement risks among multiple parties. The company’s lawyer, Carter G. Phillips,

Patents, Page 14



CHRISTOPHER A. MAYNOR—THE TECH

Students came back from spring break to a freshly painted first floor of the Student Center, though there are still some sections that haven’t been treated with a coat of the brighter and more cheerful light-blue paint.

LEONARD NIMOY'S SECRET SELVES

Iconic actor and photographer speaks with *The Tech*.
ARTS, p. 8

INSPIRATION IN THE IMPOSSIBLE

Linde speaks about proof of the big bang. **CAMPUS LIFE, p. 6**

TRY JAPANESE-STYLE HOT POT

Boston’s Swish Shabu restaurant does not disappoint. **ARTS, p. 10**



KISSIN'S FOUR STANDING OVATIONS

Pianist Evgeny Kissin’s performance captivated Symphony Hall audience.
ARTS, p. 7

WHAT TRIGGERED THAT FIRE ALARM?

Somewhere on the *Search for Meaning*: Don’t try this at home, kids. **FUN, p. 5**

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Greece clears the way for bailout money after vote

By Niki Kitsantonis
THE NEW YORK TIMES

ATHENS, Greece — The Greek Parliament voted narrowly early Monday to back a bitterly contested package of economic changes, clearing the way for the release of further funding considered crucial for a financial rescue, despite a last-minute attempt by the political opposition to postpone the vote.

The package passed by a wafer-thin majority in Parliament a day before eurozone finance ministers are scheduled to meet in Athens, where they are expected to discuss Greece’s reform progress and the question of rescue funding.

In a statement after the vote, Prime Minister Antonis Samaras described it as “a huge step toward the Greece of tomorrow, for young Greeks, for the Greek people.” But the vote led to the ejection of a member of Parliament from the conservative New Democracy party, which leads the country’s fragile coalition, reducing its majority in Parliament to just two seats in the 300-seat House.

The passage of the economic measures, which interest groups ranging from dairy producers to pharmacists opposed, opened the way for the release of up to 10 billion euros in loans, or \$13.8 billion, that Greece needs to pay down bonds.

Greece’s so-called troika of international lenders — the European Commission, the European Central Bank and the International Monetary Fund — has extended the country two bailouts worth 240 billion euros. The bailout money has been given out in installments in exchange for austerity measures, chiefly tax increases and cuts to salaries and pensions, that have slashed living standards and led to record unemployment of close to 28 percent.

The latest measures include steps to lift barriers to competition and a new framework for the continuing recapitalization of Greek banks. The bill also includes a pledge to distribute 527 million euros to Greeks on low incomes.

The bill was passed into law after a day of high tension and drama in the Greek Parliament.

Earlier in the day, the main left-ist opposition party, Syriza, which opposes the terms of Greece’s international bailouts, called for a censure motion against Finance Minister Yannis Stournaras. Leftist leader Alexis Tsipras described him as “the key administrator of a death contract against the Greek people.” After several hours of vehement exchanges and argument, the speaker of Parliament rejected the leftists’ motion as unconstitutional because it came less than six months after a similar initiative by Syriza.

Stournaras, who has coordinated tough negotiations with the troika and is to head the eurozone meeting in Athens on Tuesday, accused Tsipras of attempting what he called an “unprecedented parliamentary coup” aimed at upsetting the government’s efforts to clinch rescue funding without delay.

Public opposition to an overhaul remains strong in Greece, though the violent protests that once accompanied austerity rallies in Athens have become rare after more than three years of economic changes imposed by the troika.

UN court orders Japan to halt Antarctic whaling

By Marlise Simons
THE NEW YORK TIMES

PARIS — The United Nations’ highest court Monday ordered Japan to halt its annual whaling hunt in the Southern Ocean around Antarctica, saying that its present program was not being carried out for scientific purposes, as Japan has claimed.

In a 12-4 judgment, the International Court of Justice in The Hague, Netherlands, found that Japan was in breach of its international obligations by catching and killing minke whales and issuing permits for hunting humpback and fin whales within the Southern Ocean Whale Sanctuary, established by the International Whaling Commission.

Reading a summary of the judgment, presiding Judge Peter Tomka of Slovakia said the present “research program,” dating to 2005, has involved the killing of 3,600 minke whales and a number of fin whales, but that its “scientific output to date

appears limited.” The ruling suggested instead that Japan’s whaling hunt served political and economic reasons.

Lawyers attending the proceedings said there was a gasp in the audience when Tomka ordered Japan to immediately “revoke all whaling permits” and not issue any new ones under the existing program.

“I rarely heard such an unequivocal, strong ruling at this court,” said a lawyer with long experience at the court who asked not to be named because he is working on a case in progress.

The ruling is binding, and Japan cannot appeal.

No immediate reaction from Japan was available, although it has said it would abide by any judgment in the case.

But a Japanese delegate said in earlier hearings that Japan might consider withdrawing from the whaling commission, which oversees management of the world’s whale populations.

The court left open the possibility for future whale hunting if Japan redesigned its program.

Tokyo has said that it needs data to monitor the impact of whales on its fishing industry and to monitor the whale population’s recovery from overfishing.

The ruling drew immediate praise from environmental groups, including the Sea Shepherd Conservation Society, which has sent fast ships to the remote and icy waters to block and harass Japan’s whaling fleet.

“We are very happy with the backing of the International Court,” Geert Vons, a representative of Sea Shepherd, said after leaving the court. “We had never expected such a strong ruling, telling Japan to cancel all of its Southern Ocean licenses.”

The court also suggested that Japan reconsider a second so-called scientific program in the northern Pacific, but the present case focused only on the Southern Hemisphere.

Asiana airlines: secondary cause of San Francisco crash was bad software

By Matthew L. Wald
THE NEW YORK TIMES

WASHINGTON — While the world has been fixated on the disappearance of Malaysia Airlines Flight 370, the investigation in the crash of another Boeing 777, the Asiana flight into San Francisco last July, is plodding forward, and the Korean carrier is raising arguments that threaten to put another question mark over the jetliner.

Asiana’s crash, into the sea wall in front of a runway at San Francisco International Airport, was captured on video, with debris spread over a few hundred feet of runway.

Three people died and scores were injured, but most people walked away.

The prime cause was quickly clear; even Asiana faulted its crew for failing to notice that the airplane was flying far too slowly to stay in the air.

But it is also blaming “inconsis-

tencies in the aircraft’s automation logic.”

The carrier said Monday in a filing with the National Transportation Safety Board that bad software design “led to the unexpected disabling of airspeed protection without adequate warning to the flight crew” and that a system to warn the crew of low airspeed did not sound soon enough.

The airline also said that the approach ordered by air traffic controllers “led to an excessive pilot workload during the final approach.”

Boeing has focused on the crew’s failure to maintain proper airspeed, which is expected to be listed by the NTSB as the probable cause of the crash.

Asiana’s filing is an effort by the airline to have the plane’s design characteristics listed among the contributing factors.

The board’s conclusions are not admissible in court, but its rank-

ing of factors often influences how a carrier’s insurance company and the plane’s builder apportion the damage settlements or court judgments.

In the Asiana crash, the crew believed that an auto-throttle would manipulate the engines to keep the plane’s airspeed within the range needed for a safe landing, somewhat like the way the cruise control in a car will adjust the throttle to keep the speed constant.

It became obvious in the first few days after the crash that because of a quirk in two tightly linked systems, the autopilot and the auto-throttle, and because the crew had manually adjusted the throttles at one point, the auto-throttle had gone into “sleep” mode.

The Asiana pilots union, in a separate submission to the NTSB, said that pilots were not trained on this characteristic of the 777.

Palestinian ambassador was holding explosive device when he died, Czech police say

PRAGUE — The Palestinian ambassador to the Czech Republic, who was killed Jan. 1 in an explosion in his new residence here, most likely died after an explosive device he was holding detonated, the Czech police said Monday.

Initial reports suggested that the ambassador, Jamal al-Jamal, was killed by a security system attached to a safe that had just been moved into the new quarters from the old Palestinian mission and residence.

“This option was eliminated, among others, based on trial explosions conducted within a safe,” said a police spokeswoman, Andrea Zoulova, which indicated that the explosive device was neither in the safe nor attached to it when the explosion occurred.

The ambassador was apparently holding the device when it detonated, she said, adding that further examinations were underway.

Some Palestinian officials had said the safe had not been opened for decades, while others said it was used daily.

Police are still investigating the circumstances surrounding unregistered weapons found on the premises.

Palestinian authorities say they were gifts from officials of the former Communist Czechoslovakia, which supported the Palestine Liberation Organization and allowed it to maintain an embassy.

—Hana De Goeij, The New York Times

Judge won’t block Arizona rules on abortion drugs

A federal judge in Tucson, Ariz., has refused to block some of the strictest rules in the nation on the use of abortion drugs.

The rules, which were approved by the Arizona Legislature in 2012 and will take effect Tuesday, restrict the use of medication to induce abortions during the early stages of pregnancy to the first seven weeks.

The rules also restrict the use of the drug, mifepristone, to protocols approved by the Food and Drug Administration in 2000. That early approval called for the drug to be given in higher doses than is customary today, and only in doctors’ offices. Since those rules were first approved, doctors have found that a lower dose of the drug is effective, and that it can be safely taken outside of doctors’ offices.

The new restrictions, argued Planned Parenthood, one of the plaintiffs in the case, would force many women to undergo unnecessary surgical abortions, and would prevent some women from getting an abortion at all — especially in northern Arizona, where the only abortion provider offers only the medication route.

The plaintiffs sought a temporary restraining order to block the rules while a legal challenge could work its way through the courts.

In denying the request Monday, Judge David C. Bury of U.S. District Court wrote that Arizona’s rules will not unduly burden a woman’s constitutional right to an abortion, since the alternative of surgical abortions remains available. The fact that some women may have to travel hundreds of miles to clinics, twice, under the restrictions, and that the process will cost more, he wrote, “do not qualify as irreparable harm.”

Similar laws have been overturned in North Dakota and annulled by Oklahoma’s Supreme Court.

Cecile Richards, president of the Planned Parenthood Federation of America, said in a statement, “It is outrageous that politicians are interfering in a doctor’s ability to provide the highest quality medical care for women in Arizona.”

—John Schwartz, The New York Times

US to require rearview cameras in new cars by 2018

The National Highway Traffic Safety Administration issued a long-awaited final rule Monday requiring vehicles to be equipped with what regulators call rear visibility technology.

The technology is expected to significantly reduce fatalities and serious injuries caused by a driver backing over a person, particularly a young child, who cannot be seen behind a vehicle.

The final rule requires all new vehicles less than 10,000 pounds gross vehicle weight, including passenger vehicles, buses and trucks, to have this technology in place by May 2018.

In 2008, Congress passed a law requiring the Transportation Department to issue a federal safety standard on the issue by 2011.

The rule was delayed several times, spurring a coalition of safety advocates to sue the agency over the delays.

A federal appeals court was scheduled to hear arguments Tuesday on whether to order the Transportation Department to issue the standard.

The final rule amends the current federal motor vehicle standard by expanding the area behind a vehicle that must be visible to the driver when the vehicle is shifted into reverse.

That field of view must include a 10-foot-by-20-foot zone directly behind the vehicle. The system used must meet other requirements as well, including the size of the image displayed for the driver.

According to the safety regulators, automakers will use rear-view video systems and in-vehicle displays to meet the requirements in the near term.

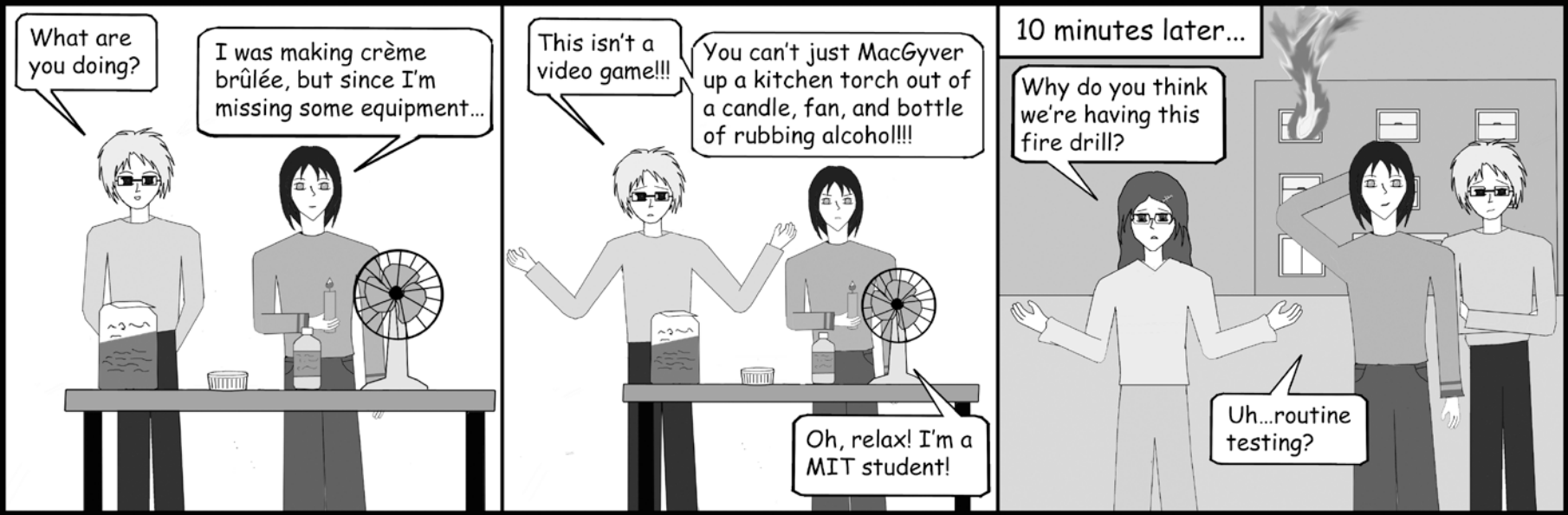
NHTSA estimates that, on average, 210 fatalities and 15,000 injuries each year were caused by these back-overs, and that children younger than 5 account for 31 percent of back-over fatalities each year.

The new rule satisfies the mandate of the Cameron Gulbransen Kids Transportation Safety Act of 2007, which was named for a 2-year-old boy who was run over and killed by his father, Dr. Greg Gulbransen, in his driveway in 2002.

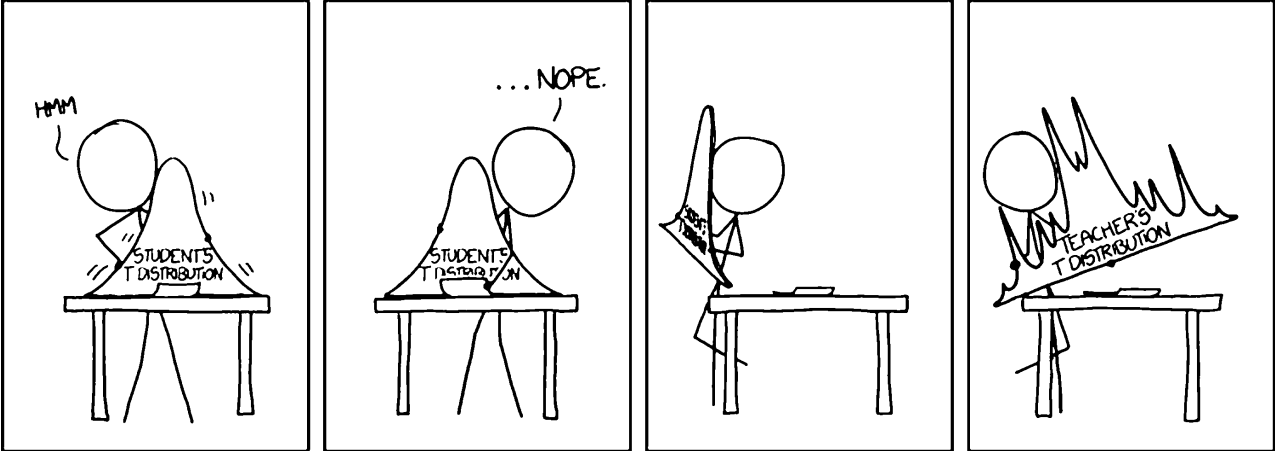
—Cheryl Jensen, The New York Times

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



[1347] t Distribution



If data fails the Teacher's t test, you can just force it to take the test again until it passes.

Saturday Stumper by Brad Wilber

Solution, page 14

ACROSS

- 1 Dispense
- 8 Blitz initiator
- 13 Fundamentally
- 15 Crumb
- 16 Cry of reproach
- 17 They're filled in factories
- 18 El Al no-show?
- 19 Son of Calliope
- 21 Mimicking
- 22 Backdrop for some schools
- 24 James Monroe's opposition in 1820
- 25 Salida __ sol (sunrise: Sp.)
- 26 Florence Nightingale's birthplace
- 28 Pulitzer composer of '76
- 30 Bagel flavor
- 31 What a ghost might be responsible for
- 33 Turns, as a corner
- 35 Raspberry
- 37 Female __
- 38 Unfolds
- 41 Cello bottom
- 45 Watershed protection

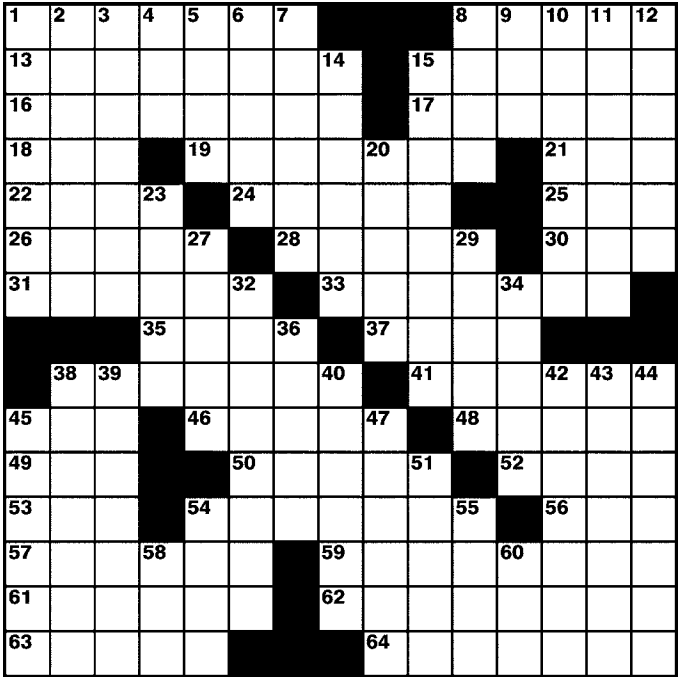
agency

- 46 Painter with a "New Orleans period"
- 48 Fabric in the etymology of "denim"
- 49 Turned yellow
- 50 Blues singer with 10 Grammys
- 52 "Paramount leader" met by Thatcher in '84
- 53 "Cliquez __" (French web instruction)
- 54 Wall-climbing aid
- 56 Beast known by its genus name
- 57 Legendary forger
- 59 Launch setting
- 61 Subject of marine-resource regulation
- 62 Rule often disobeyed by foreigners
- 63 Goes full-tilt
- 64 Makes available

DOWN

- 1 Shade source
- 2 Letter recipient

- 3 Heat, for example
- 4 Small specimen
- 5 Emperor after Galba
- 6 Uncommon GPS recommendation
- 7 Opposite of "zip"
- 8 Among other things
- 9 Focus of much of a Lansing museum
- 10 One accepting charges
- 11 Rhododendron relatives
- 12 Tiki-bar stipulation
- 14 Beaver State high point
- 15 Silkscreening need
- 20 Recruit
- 23 Big name at the Seoul Olympics
- 27 Submit
- 29 Avenue
- 32 Hushed, maybe
- 34 Bonus
- 36 Shakespearean false flatterer
- 38 One out
- 39 Not especially edgy
- 40 Broke the ice, perhaps
- 42 To be delivered



- 43 Winked at
- 44 Wipes out
- 45 Stand on more than two feet
- 47 Police-car accessory
- 51 Ironman Triathlon licensee

- 54 Town a bit east of the Rio Grande
- 55 Drillmaster's word
- 58 OSHA compliance course
- 60 Honoree on a 2009 bicentennial stamp

SCIENTIFIC IMPRESSIONISM

Proving the ‘impossible’

Andrei Linde’s talk inspires and unites scientific community

By Adam Freedman

When Professor Andrei Linde of Stanford University first read a paper in the 1980s by MIT professor Alan Guth, then a postdoc at Stanford, he was taken by its description of cosmic “inflation,” the notion that one trillionth of one trillionth of one trillionth of a second after the Big Bang, the universe — for an infinitely brief moment — expanded faster than the speed of light. Linde immediately started improving the theory, completing his reworking before Guth’s next paper came from the United States that said the theory was impossible. “It’s a good thing the Soviet mail system was so slow, I didn’t hear I couldn’t improve the theory until I already had!” jokes Linde.

I am writing to describe what it was like to sit in on a lecture that I did not understand, but that changed my life. The March 18 lecture in 54-100 entitled “Inflation: News and Perspectives” was delivered by Linde — who will now almost assuredly win the Nobel Prize in physics — just one day after his theory about the universe’s rapid expansion during its earliest moments was confirmed by direct physical evidence. The evidence, recently published by the BICEP2 team after a painstaking multi-year effort, included a surprisingly robust signal of gravitational waves of polarized microwave radiation throughout the universe. This work is by all accounts one of the most staggering scientific discoveries of all time and will change our understanding of physics and cosmology forever. And the craziest thing of all is that despite not understanding a single thing that this professor said during the course of his one hour seminar,

I was captivated by the magnitude, integrity and staggering accomplishment of the moment.

The lecture had a celebratory spirit. There was pride in the air not just across the physics community, but also across the entire science community. I am certain that many people in the audience from unrelated fields, like me, also had no idea what Linde was talking about. But understanding didn’t matter because everyone in the packed auditorium was immersed in the glow and power of exceptional achievement. Everyone knew — technical details notwithstanding — that this was a moment that marked a definitive, significant triumph in unlocking an eternal truth about the nature of our universe. As Linde proceeded through his talk, little plastic wine glasses and bottles of sparkling cider were distributed throughout the lecture hall in an endearingly clumsy manner.

Guth led the entire lecture hall in a sparkling cider toast: ‘Cheers to what we can achieve with science.’

It is a humbling experience to be in the presence of such, for lack of a better term, giddy genius. Linde explained the history of inflation theory, of the marginal and significant improvements to the theory over the past 30 years — again, in terms that were literally gibberish to me, but overall formed a cohesive story, the excitement for which

kept the standing room only audience spellbound. Seeing Linde discuss that his most groundbreaking and breathtaking work had been validated, in what was effectively a 30-year victory lap condensed into a one-hour seminar, was as inspirational a moment as I have witnessed. And yet, this was a victory lap for the community, for humanity, not for any single person, and Linde made that point obvious, as he harkened back to Newton, Einstein, and Hawking as having laid the groundwork for his own contributions.

His pride overflowed into the audience, as he repeated how shocked he was that the evidence was so strong (“Zero point two!” he kept saying), stronger than he had ever imagined, strong enough in fact that almost every other theory of inflation has now been literally nullified, rendered dead and moot. He walked us through competing theories and one by one said, “done, done, done” — and in doing so, we were direct witnesses to the irrevocable realignment of cosmology. There was no coming back from this truth; the door that Guth had found, Linde had described, and the BICEP2 team had walked through, had been closed behind us forever. And being in the audience to hear Linde speak of that journey was simply remarkable. It was awe-inspiring to be in the presence of such profound truth worn on the face of a man who himself was so obviously overwhelmed with genuine, honest joy, as he soaked in the grandeur of the moment.

By the end of the talk, having proceeded through a parade of figures and equations, Linde took a few moments to explicitly state that he hoped the evidence stood up to criticism, that upon checking and recheck-

ing BICEP2’s findings, that the physical evidence confirming his theory would hold up. He did his best to hedge his conclusions for now, to remain as rational as possible in the face of unimaginable excitement and corroboration — always the good scientist. Explicitly rooting for a study to be verified is dangerous for a scientist, but can you blame him? Though confirming the evidence would bring Linde great personal fame, he chose instead to focus on how beautiful the model turned out to be, and how such groundbreaking work would open doors to entirely new fields of physics.

As the lecture concluded, Guth led the entire lecture hall in a sparkling cider toast: “Cheers to what we can achieve with science.”

And so this is how I came to be filled with an overwhelming motivation to explore and to achieve on account of a lecture that I did not understand. Sometimes inspiration can be imparted by a shared experience, by a communal feeling that science done properly and with full commitment can forever change the way we all think. The pervasive feeling that together we continue our march towards universal discovery and truth was indelibly imprinted on my own identity that day, and having felt it, I am no longer the same. Together we move forward as scientists, as humans, and as a civilization. Thank you Newton, Einstein, Hawking, Guth, BICEP2, Linde, and countless other contributors. You have inspired current and future generations of those who dare to question, to answer, and to dream. Bravo.

Adam Freedman is a graduate student in Environmental Engineering.



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CONCERT REVIEW

A prodigious piano performance

Pianist Evgeny Kissin receives four standing ovations in one night

ROBERT TORRES

Russian classical pianist Evgeny Igorevitch Kissin performed at Boston's Symphony Hall on March 16.

By Erika Trent
STAFF WRITER

The stage of Symphony Hall — usually packed with over a hundred Boston Symphony Orchestra performers — seemed empty on Sunday evening, as it had nothing but one grand piano. But that all changed when Evgeny Kissin released the first chord of Franz Schubert's Sonata No. 17. The sheer power of that first note, which filled the entire Hall, marked the beginning of a night of phenomenal piano music.

Russian classical pianist Evgeny Kissin, internationally recognized as one of the most gifted classical musicians of his generation, has performed worldwide with countless renowned orchestras, including those in Russia, Eastern Europe, Japan, Germany, Britain, and North America. The Celebrity Series, a performing arts series that is celebrating its 75th anniversary, presented his recital debut thirteen years ago in Boston. Kissin has received dozens of musical awards for his performances across the world, and on Sunday, the audience of Symphony Hall had the opportunity to witness his extraordinary talent.

Kissin opened the night with Schubert's Sonata No. 17, a playful piece with impetuous rhythms and unpredictable harmonies. Kissin's demonstrated his breathtaking virtuosity, his fingers running up and down scales with impressive dexterity, and his hands jumping across the piano keyboard with perfect precision. Most striking was his range of dynamics: Kissin, at times, produced notes so hushed and delicate that the audience held its breathe and at other times, he released notes so thundering and powerful that some audience members jumped out of their seats.

Following the intermission was Sonata No. 2, Opus 19 by Scriabin, also known as his Sonata-Fantasy. In comparison to the whimsical character of Schubert's sonata, this agitated and darkly somber sonata demonstrated Kissin's musical depth and touched his listeners' hearts. Kissin delivered the complex counterpoint between the left and right hand effortlessly, always guiding his listeners' ears to the melodic line. As the melancholic melodic line slowly melted away into a dream-like fantasy, Kissin's mastery over the piano was evident.

Kissin concluded the scheduled program with another work by Scriabin, namely a selection of pieces from his Twelve Etudes, Opus 8. An “etude,” meaning “study” in French, is usually a musical composition meant to train a pianist’s technique; but Kissin breathed life into all seven of the etudes he performed, transforming these “practice pieces” into unforgettable works of art. In No. 2 he displayed perfect cross-rhythms between two hands, effortlessly playing five notes over three, five over four, and six over four. His fluid arpeggios in No. 4 relaxed the audience — only to jolt them awake with his furious and rapid octaves in No. 5 and No. 9, during which his hands adeptly jumped across the entire range of the keyboard. At times it sounded as though his performance were the result of four hands playing, not just two.

Immediately after the final, grandiose cadence, the audience burst into a standing ovation, punctuated by frequent cries of "Bravo!" as audience members ran up to the stage to hand Kissin bouquets of flowers. The audience's continued applause signified their plea to hear more, a request to which he gladly responded. Kissin de-

Evgeny Kissin

Piano Recital

**Presented by Celebrity
Series of Boston**

Mar. 16, 2014

Symphony Hall, Boston

livered three encores: *Siciliana* by Bach-Kempff, a hauntingly beautiful piece; Scriabin's *Opus 42, No.5*, another display of his unarguable mastery over the piano; and Chopin's *Polonaise in A flat*, a joyful tune that is familiar to even non-musicians. I believe I was not the only one in the audience who was humming it the entire night after the concert!

Kissin's performance not only was virtuosic in terms of technical skill, but demonstrated his exceptional expressive and poetic depth. For those two hours, all those in Symphony Hall were united, captivated by his piano music.

CAMPUS ARTS

Garcia-Dominguez discusses music at MIT

MIT Emerson Fellow Dario Garcia-Dominguez '15 performs recital

By Chennah Heroor
ARTS EDITOR

The Emerson Scholars and Emerson Fellows program helps recognize the many talented musicians at MIT. *The Tech* had the opportunity to talk to Dario Garcia-Dominguez '15 about what it's like to be an Emerson Fellow, his Advanced Music Performance Student Recital this Wednesday at Killian Hall at 5 p.m., and music at the MIT. Garcia-Dominguez plays the piano and will be performing the following at his recital: Beethoven, Bagatelles, Op. 33, Sonata in E Major, Op. 109; Chopin, Ballade No. 2 in F Major, Op. 38; Prokofiev, Sonata No. 3 in a minor, Op. 28; and Liebermann, *Gargoyles*, Op. 29.

The Tech: So, are you an Emerson Scholar, and what does that mean?

Dario Garcia-Dominguez: I'm actually an Emerson Fellow. While Scholars have a scholarship for one semester for private lessons, Fellows have a scholarship for a full year and take 21M.480 [Advanced Music Performance], which meets every Monday from 5 to 7 p.m. It's a class in which the student musicians play for one another and give each other feedback. It's a great way to get performance experience and insightful feedback from other advanced musicians. In addition, as an Emerson Fellow you are required to perform a full solo recital at end of the year.

TT: How long is your recital?

DGD: I'll be playing 50 minutes of music. It's a very strict cutoff. I was worried that my program was clocking in at 58 minutes a week ago, and I had to cut it down. Now it's between 49 and 52 minutes.

TT: So what did you have to do to cut down your in recital?

DGD: I took out a couple movements from the contemporary piece [*Gargoyles*]. Unfortunately, the fourth movement is not up to performance standards and it was a clear choice. I also took out the second movement because it's not as interesting to me.

TT: How many pieces are you playing?

DGD: I'm playing a total of five pieces. I'm starting the program with a couple of short Bagatelles by Beethoven. They are from his early life, and they're very classical and almost childlike. I wanted to start off the program with something easy to chew on for the audience. Next I'll be delving into his 30th piano sonata, which is Opus 109, one of his later works. He's definitely more depressed and frustrated with life at this point. It's very emotional and romantically driven, as opposed to his earlier works, and that's what I really love about it. The last movements is one of the most intense and substantial movements I've ever heard, or ever played, rather. I spent a lot of time figuring out what I wanted to get from this piece. After that, I'll be playing Chopin's Second Ballade. It starts off with a genteel waltz-like intro that puts the audience at ease. But it suddenly dives into this thunderous, virtuosic storm that's a lot of fun to play. Following that Chopin, I'll be playing Gargoyles [by Lowell Liebermann], which is the most contemporary piece in my program. I'm only playing two of the movements as I mentioned earlier, the first [Presto] and the third [Allegro Moderato]. Gargoyles is a good name for the piece because each of

its four movements has its own wildly different character. I imagine heads poking out of corners and gruesome faces. It's very polytonic and there's a ton of chromatics, things that put the listener at the edge of their seats. The first movement is very spontaneous and fun with a lot of changes in dynamic. The third movement, my favorite, is completely different. It has quiet arpeggios in the center of the keyboard, with an uplifting melody on top of it. It's very pretty, but kind of off-putting and strange, tonally. Following the Gargoyles, I'll be playing Prokofiev's Third Piano Sonata. It's a riot. My friends tell me I have a knack for these spontaneous pieces like the Prokofiev and the Liebermann, so I'm glad I'm finishing off my program with them.

TT: How many years have you been playing piano?

DGD: Fourteen years. I started when I was six. I would say that the first six years or so of piano lessons, I was forced to play by my parents, like a lot of kids were. Then I just kind of found out that I really enjoyed it. I was fairly talented, so I went on my own after that.

TT: MIT isn't a place that many people commonly think of as musical. Did that affect your decision to come here, or did you ever want to attend a conservatory?

DGD: I knew that I wanted to do both science and music. I was looking at a ton of colleges with dual degree programs. Considering that I didn't really see music as a career, I put science first. When I got into MIT, I thought, "Well, this is an opportunity I can't pass up." I looked into the music program, and I now think MIT is very un-

Emerson Fellow Recital

Dario Garcia-Dominguez '15

Killian Hall

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derappreciated in terms of music. As a high schooler, I was surprised to find that one of the most acclaimed performance pianists [David Deveau] teaches here, and when I arrived I amazed to find that I could have the opportunity of taking private lessons with him. In addition, the music department has many interesting class options, a plethora of knowledgeable individuals and great, fun teachers. I've enjoyed all the music classes I've taken here.

TT: Do you have any favorite music classes at MIT?

DGD: This is kind of out of the ordinary, but I really liked taking Intro to World Music [21M.030] with Patricia Tang. We got to experience the ethnic music we were learning about first hand, which is something not a lot of music classes get to do. With many of the introductory level classical music classes students don't ever learn the instruments being played in class, but this is something World Music achieved nicely — we got to learn and play the Sabar drum and the Balinese gamelan!

INTERVIEW

The Tech interviews Leonard Nimoy

Iconic actor and photographer showcases work at Boston University



SETH KAYE PHOTOGRAPHY

Actor and photographer Leonard Nimoy talked to *The Tech* about his art.

By Karleigh Moore
ASSOCIATE ARTS EDITOR

Over spring break I had the incredible opportunity to interview Leonard Nimoy. While he is perhaps best known for his role as *Star Trek*'s Mr. Spock, Mr. Nimoy is also a renowned and talented photographer. Mr. Nimoy shares his experiences with photography, his projects, and MIT. His photography is being shown at the Sherman Gallery at Boston University until May 9.

The Tech: How has your experience with acting and with film impacted your photography?

Leonard Nimoy: Essentially, I think on two levels: one emotional and the other technical. The emotional impact has to do with looking for something dramatic happening in the photograph, something that reaches out and touches somebody in some way. And the technical is having to do with composition and framing — light and dark, light and shadow.

TT: What sort of messages do you think you can express through photographs that you don't really get through film?

LN: I don't know. That's a tough one. That would take an evening of discussion to explore that issue. Obviously, a photograph is something that captures an instant. Where as the film work is a story told over a period of time and so, the photograph has to be captured in total in a moment. Almost like a cartoon, like in the *New Yorker*. Where you look at it and read the bottom line and boom! You've got it. Hopefully you'd do that when you look at a photograph. With a film, you sit down to watch a story unfold. They're quite different.

TT: I wonder what you think about photography as a storytelling medium?

LN: Again, the story has to be captured in complete very quickly. It has to something that can reach out and touch the viewer in that instant. I mean it's okay, to stand and study a photograph and look for further and further ideas in it, but at the most primitive level ... you've got to be able to capture something that speaks to the audience immediately.

TT: What sort of things do you tend to connect with emotionally? What makes you want to take that photograph? What is that feeling you get?

LN: The work that I've cared most deeply about has been thematic. Over the last, I would say, twenty years— I've been doing photography in one form or another for, oh golly, over seventy years. I'm eighty-three years old and I started when I was about ten. So, it has been a long, long road but the thematic work only in the last twenty or so years... I don't carry cameras anymore. I used to. For many years I carried cameras wherever I went. Photograph whatever I saw that was of interest. In the last twenty years, I've only used cameras to explore thematic ideas which presented themselves first. And then bring out the cameras to try to explore that idea.

TT: Where do you get those ideas from? That initial project idea?

LN: They can come from anywhere. The *Shekhina* project which has to do with a female deity came from my Jewish experience as a child, which I've written about. In the synagogue, when first learning that there was such a thing as a power coming into the sanctuary to bless the congregation. It was a female deity and I decided to explore that photographically. The *Secret Selves* came to me from a story that I read about Aristophanes from Ancient Greece, talking about the fact that the human angst was created by us hav-

ing been divided into two parts of ourselves by Zeus with a giant sword in ancient times and in mythical times. And that we are looking to reintegrate because we were separated with our secret or private selves, so that is how that project came about. They come from various sources.

TT: What advice would you give to someone just getting into photography?

LN: It is helpful of course to master the craft. To get comfortable with the camera. Learn what a camera can do and how to use the camera successfully. Doing exercises for example if you try to find out things that the camera can do that the eye cannot do. So that you have a tool that will do what you need to be done. But then once you have mastered the craft the most important thing is to determine why you want to shoot pictures and what you want to shoot pictures of. That's where the thematic issue comes to life ... I'll tell you a story. Around 1971, when I had finished five years of intense television acting — *Star Trek* and *Mission Impossible* — I decided to do some more serious study about photography in thinking that I might want to change careers. I went to UCLA to study with a man named Robert Heinecken, who was the head of the photography department at UCLA at the time. Robert Heinecken was heavily involved with trying to push the frontiers of photography, to use photography as an art form rather than simply as a recording process. He told the following story to illustrate how strongly his feeling was about feeling close to your theme. He said that if you are walking down the street, camera in your hand, loaded and ready to shoot. You see a person falling from a high building, either having fallen or jumped ... That person is falling through space ... You don't shoot that photograph unless the theme you are working on has to do with the effects of space on the human figure. If you simply photograph that event because it is an event that is happening, you're doing photojournalism.

TT: So it isn't just taking pictures of what-

ever you feel like?

LN: [laughs] Yeah ... yeah, so. That is a pretty strong statement. I found it on the one hand funny and on the other enlightening. I began to understand that for him at least, and for me eventually, it was important to understand what it was that you're trying to capture with a camera. What you want to use this tool for. For me, it helped me to begin to search for and concentrate on thematic photography.

TT: What would your Secret Self be like? What would be your photograph?

LN: I tend to think that my Secret Self has been played out in a lot of my performances as an actor. I have been there and done it. There's not much that has not been revealed in some of my acting work and in the roles that I've played. I've played all kinds of people, some good people, some bad people, some confused people, some smart people, some useful people, some useless people ... Sexuality has been a factor in my work. Physical appearance has been a factor. I really think I've acted it out in my acting work.

TT: [There are a lot of *Star Trek* fans at MIT.] Would you say that your secret self would be anything like Spock?

‘Find out what it is that touches you most deeply. Pursue it, learn about it, explore it, expand on it.’

— Leonard Nimoy
ACTOR AND PHOTOGRAPHER

LN: I had a very interesting experience at MIT some years ago. A couple of experiences actually. I was there once for a visit to the Media Lab ... I went specifically to MIT in the mid 1980s. I was preparing to direct one of the *Star Trek* movies and I contacted a professor there named Philip Morrison who was an astrophysicist. I had a meeting with him for about an hour talking about what I would reduce to a simple name, call it "Future Science." Not science fiction but future science. What are we looking forward to? What might happen? The question I put to him was the following ... I asked him if he'd ever seen the movie *The Day the Earth Stood Still* ... so there is this scene in the movie ... the movie is about a being arrives on Earth and lands in Washington DC in a saucer shaped space ship and he is from another planet.

Meanwhile we are introduced to a character ... [k]ind of an Einstein figure. In his classroom there is a large blackboard with a very complicated equation laid out in chalk, ending in an equals sign and unresolved. The gentleman from this other planet walks in to this room, sees this unresolved formula and picks up the chalk and puts in the resolution. Very quickly and simply. He says to the man, with kind of a grin and a gleam in his eye, "There are a lot of questions that I would like to ask you." The sense is that this being has answers to the questions that are befuddling scientists

Secret Selves

Sherman Gallery at Boston University

March 20 – May 9

of the period. So I said to Professor Morrison, "What questions would you ask if you were in the presence of that kind of intelligence?"

In a funny kind of way he became somewhat irate. He said, "This is a science fiction idea, that when we come across or come in contact with an alien intelligence they would be more advance than we are and... [that] they would have the answers to the questions that we have not solved yet. He said it's not going to work that way ... So he said the fact is, that if we ever make contact with that alien intelligence, they are not going to speak our language. Their minds will not work the way ours do. It is possible that we'll never be able to communicate with them because they will simply be unlike us in that way.

I had to learn that lesson. It's a big, big lesson. I introduced that lesson into *Star Trek IV: The Voyage Home* where we were hearing sounds— the whales. That's where the idea of the whale song came to me. That it is not meant for us to understand it, that it is our human ego that says that we should be able to interpret that and know what it means. Well, it's not meant for us. It's an unknown. Let it go. That's where the idea came from, that conversation with Professor Morrison at MIT.

TT: As someone who has had a lot of success in a lot of different endeavors ... I'm sure you know that many of my peers at MIT have grown up admiring you as Mr. Spock because you really made science and being smart really cool. Do you have any words of wisdom for a group of young people looking to succeed and push limits?

LN: Yeah, yeah. Well I am a great believer in what we've been told time and time again by people like Joseph Campbell, "find your bliss." Find out what it is that touches you most deeply. Pursue it, learn about it, explore it, expand on it. Live with it and nurture it. Find your own way and make your own contribution. Find a way to make a contribution to this society because God knows we need contributions from the coming generation. This planet and this civilization is in need. I see it as a time of need. I spoke at Boston University's commencement a couple years ago, and I said to give us the best of what you have, we need it. We crave it, we need what you have to offer. It's important that you focus on what you can bring to the party. The rest will take care of itself, hopefully. It's most important that you find a way to make a contribution.

TT: Thank you so much for taking the time to talk with *The Tech*.

LN: You're very welcome, it's been a pleasure. Of course, I give you my perpetual blessing which is, live long and prosper.



SETH KAYE PHOTOGRAPHY

Leonard Nimoy (right) and Matt Mitchell (left) behind the scenes of Nimoy's project *Secret Selves*.



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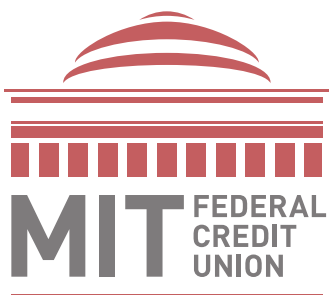
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Japanese-style hot pot restaurant delivers on nearly every aspect of the dining experience

Shabu-shabu, the Japanese style of hot pot, actually translates to swish-swish, echoing the sounds that the ingredients make as you stir them in the soup at your table. It makes sense that Swiss Shabu has evoked this auditory experience with their name, as they provide a dining experience that is a treat for all of the senses. Not only are the cook-it-yourself meats and vegetables delicious, the presentation is excellent and the pleasant service adds to an overwhelmingly positive meal.

Swish Shabu is located on a side street near Fenway, and their small dining room is clean, modern, and filled with a young crowd chatting happily over their soups. An attentive waiter came over to my table many times to refill drinks and clear empty plates, but she never felt pushy or out of place. She was also happy to answer questions, though she did not explain the hot pot concept, which would have been welcome for a newcomer to shabu-shabu.

After salivating over the impressively large menu, I decided to start with the tentacles-only fried calamari. This starter made up for a small portion size with peppery flavor and light crispy batter that allowed exactly the right amount of the squid taste through. With its small size and high

quality, the calamari left me looking forward to the main part of my meal.

A large part of the appeal of Swish Shabu is the adaptability of your meal. You can pick from more than a dozen different soup broths, almost twenty different meat combos and seven different types of noodles or rice. There are also a variety of condiments, displayed expertly on tiny plates set out by the waiter, which allow you to further customize every bite. Fresh vegetables that you can cook to your exact specifications fill out the combination plates. The menu is even diverse enough to include ostrich meat. The only challenge to ordering an excellent meal is making up your mind.

I had to try the cilantro and duck egg (for a \$3 surcharge), in addition to the standard pork soup, for the base. When the broths arrived and I saw the sea of green cilantro floating on one side of the split bowl, I worried that it would be overpowering. However, the broth managed to infuse the ingredients with a delightful cilantro flavor.

and the slices of preserved duck egg were like little sunken treasures, floating just out of sight and delighting me every time I would grab one.

When the produce platter came out, it was piled high with fresh greens and accented with root vegetables like taro, radish and carrot. Ultimately, though the leafy vegetables were an excellent offset to the meat that would soon arrive, it would have been nice to have a greater variety of vegetables, both for flavor and color.

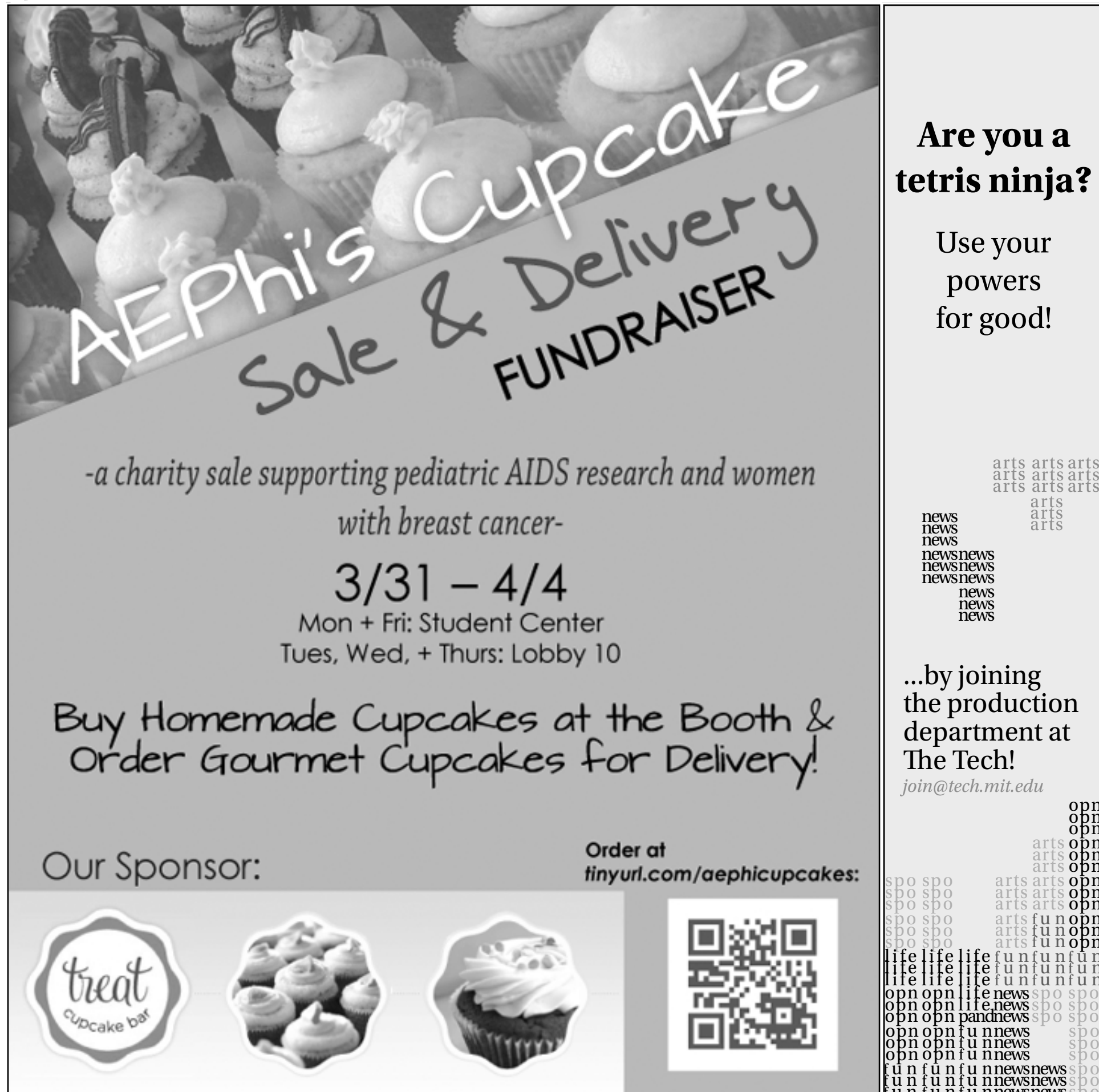
For the meat, the true star of this show, I stuck with classics and ordered sirloin, pork, and lamb. Each generous portion was sliced paper thin and rolled on a plate in a display that was practically an architectural accomplishment. Though tongs were not provided to handle the raw meat, one of the best parts of the whole experience was watching the delicate pieces of flesh cooked to the exact level that I wanted in a matter of seconds. While all of the meats were high quality and extremely savory, the slightly pricier sirloin stood out due to its perfectly marbled texture. As I ended my meal, the soup tasted more and more flavorful as it absorbed the juices from the meat. Unfortunately, they didn't provide a deep ladle to get to the last bits of broth.

A glance at the entirely ice cream based dessert menu, which provided a nice contrast to the hot soup, helped me decide I

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should finish my feast the same way I had started it — with some deep fried comfort. Despite coming with a side of disappointing Hershey's Syrup, the fried vanilla ice cream was a nice juxtaposition of creamy vanilla and a wonderfully light and crunchy funnel cake type batter.

As you leave Swish Shabu, you will definitely feel happy and full. There were a few minor issues keeping this meal from being sublime, but the staff was helpful enough to provide immediate response for any request in meal accommodation. The hot pot combos are reasonably priced between \$13 and \$20 for most options, which makes this dinner a bargain. With an emphasis on quality ingredients and beautiful presentation, Swish Shabu is a restaurant that certainly understands that a meal can be more than just an excuse to eat.






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MITx Subcommittee weighs credit for edX courses

Anthropology head calls for oversight, fearing that small curricular changes will add up

MITx, from Page 1

Proponents of such experiments often argue that delivering course material through, say, online videos frees up class time for richer interaction than offered by traditional lectures, which are seen as ineffective.

The committee warned that the student experience — of which face-time is an important part — could be “significantly reconfigured” over time “without sufficient notice or co-ordinated oversight.”

“We could make lots of incremental changes without anybody looking at the whole, and five years down the road, ten years, we’ll be someplace different,” Silbey said.

The subcommittee thus recommended that “all experimental proposals involving MITx-related curricular changes be first channeled through departments, then schools, and ultimately, Institute faculty committees” for evaluation, feedback, and approval.

Sarma wrote in an email that the

recommendations “[give] us enough leeway to do the experiments we are really interested in — such as blended learning experiments and so on — and yet opens the door to some distance learning experiments with oversight from the faculty governance system.”

“I feel comfortable with this approach and the recommendations are reasonable,” Sarma wrote.

As to awarding credit for courses completed on edX — which allows students around the world to take free online classes from MIT and other schools — the subcommittee called for a “conservative initial approach.”

Some have suggested that students could take MIT courses on edX during high school and shorten their time as MIT undergraduates to three years. A separate task force, expressing doubts, said in November that the proposal “need[ed] further attention.”

Silbey said the proposal “has no grounding, except in some impulse

that we’re on some technological race, and we need more, more, more, more, more. I think we should take a breath.”

The subcommittee wrote that edX courses could be considered for credit within the same framework in which courses taken by transfer students are considered.

To make sure students know the material when they receive credit, the subcommittee also recommended using exams (such as the Advanced Standing Exams) or supplemental courses that fill the gap between an online course and a standard MIT course.

But the subcommittee recommended against awarding letter grades for edX courses “[u]ntil online learning platforms become more robust in both pedagogy and assessment.”

The recommendations were prepared by the MITx Subcommittee of the Faculty Policy Committee, which charged the subcommittee with determining “the standards and poli-

cies necessary to guide discussions and decisions regarding the Institute’s residential education and degree programs in the context of MITx and other edX partners.”

The subcommittee comprised 15 members, including seven professors and five students.

One of the non-voting members of the subcommittee, Professor Diana Henderson, said that she saw many opportunities for digital innovation in education. “[A]ccess to multimedia performance and the ability to annotate, collaborate, and illustrate have been crucial for the development of new modes of studying Shakespeare,” she wrote in an email.

Writing-intensive subjects may not transfer as well to online-only courses, such as those on edX, Silbey suggested.

Even when evaluating courses taken at another residential college, when the claimed MIT equivalent course assigns papers, Silbey said that “if they have not written a paper,

I tend not to give them credit.” Silbey is the transfer credit examiner for anthropology and sociology.

Given that edX courses regularly attract tens of thousands of students each, they typically can’t assign papers, at least not ones that can be graded by instructors. If Silbey has her way, such courses will never substitute for writing-intensive courses at MIT.

Silbey argued that some MITx-related proposals, like the three-year MIT undergraduate program, reduce the meaning of a college education to the mere acquisition of technical skills.

Education should not just be about learning these skills as quickly and efficiently as possible, Silbey said.

Last May, the Office of Digital Learning suggested that MIT invite incoming freshmen to take an introductory computer science class on edX over the summer. Silbey said

MITx, Page 13

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EVENTS

APR. 1 – APR. 7

TUESDAY

(12:00 p.m. – 1:00 p.m.) Deutschland Theaterland: Exploring German history and culture through theatre — E40-464

WEDNESDAY

(3:00 p.m. – 5:00 p.m.) MIT Spouses and Partners Wednesday meeting: Dispelling Myths about Libido — E55-Penthouse

(7:00 p.m. – 10:00 p.m.) Space Board Games Night — Building 33, 1st floor lounge

THURSDAY

(4:00 p.m. – 5:00 p.m.) The Picower Lecture: Impact on circuits critical for memory across species presented by Dr. Carol A. Barnes — 46-3002

(4:30 p.m. – 6:30 p.m.) The Untold History of the United States — E51-115

(6:30 p.m. – 9:00 p.m.) Romanian Students Association presents *Wild Carpathia 3* — 37-212

FRIDAY

(5:00 p.m. – 6:00 p.m.) Advanced Music Performance Student Recital featuring Eleanor Bors, cello — 14W-111

(7:00 p.m., 10:00 p.m.) LSC shows *Saving Mr. Banks* — 26-100

SATURDAY

(12:00 p.m. – 2:00 p.m.) Science Carnival — Sidney-Pacific-MP Room

(2:00 p.m. – 6:00 p.m.) Graduate Association of Mechanical Engineers Art Appreciation Day — W20-306

(6:00 p.m. – 9:00 p.m.) Ebony Affair: Essence of Excellence — W50-105

SUNDAY

(12:00 p.m. – 1:00 p.m.) Sidney-Pacific *Despicable Me* April Brunch — Sidney-Pacific MP Room

(7:00 p.m. – 9:00 p.m.) Percussionist Hubert Zemler and Evan Ziporyn, clarinet — Killian Hall

MONDAY

(2:30 p.m. – 4:00 p.m.) Who Benefits When the Government Pays More? Evidence from Medicare Advantage — E62-450

(4:00 p.m. – 5:30 p.m.) Land Reform and Sex Selection in China — E62-650

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Summer classes offered

Will experiment with “blended” learning models

MITx, from Page 11

that the idea raised concerns among some faculty members. “What is the message we’re sending to incoming students?” Silbey asked.

The move, which was not approved, would pressure students to do lots of work and get ahead before coming to MIT, Silbey said. “That’s the wrong message.”

“Many people are concerned that MIT students already feel pressure, that maybe what they need is time without work — time to think, time to relax, time to just explore the world,” Silbey said.

The move would have also suggested to freshmen that “if you’re going to do work this summer, you should learn programming, coding,” Silbey said. “Well, maybe we think you should read a history book, a novel, or maybe a book of poems.”

However, she said that she thought suggesting things that incoming freshmen could do over the summer was a “perfectly good idea,” and that she would have been happy had MIT sent them five different suggestions rather than just one.

A revised proposal was later approved by a faculty committee, and this summer, MIT will be offering five on-campus classes for all MIT students. The classes will experiment with “blended learning models” that incorporate elements of both traditional and online classes.

No poetry, though: the classes are in mechanical engineering, materials science, biology, and physics.

Silbey cited the episode last spring as evidence that MIT needs more communication and oversight when it comes to online learning experiments. But Sarma, the director of digital learning, said that the fact that the proposal was not approved was a sign that review processes were working.

Still, “that kind of experiment needs not to come out of the blue, but has to go through the normal processes,” Silbey said. “Lots of the experimentation is taking place outside normal department channels.”

Silbey said that faculty members sometimes did not know when new courses with new digital components were being offered in their own departments.

“I don’t think anything has been put in the curriculum that didn’t go through [the Committee on the Undergraduate Program], but we’re pretty generous with regard to what counts as an experiment,” Silbey said. “We let a lot of things happen under the rubric of experiments, but they’re not really experiments, because there’s no A/B testing; there’s [insufficient] evaluation in a systematic way.”

“Now, we recognize that there are multiple points of view here, that some people see faculty governance as an impedance to change. ‘Oh, they drag their feet, they always ask us such picayune questions.’ But you get good feedback a lot of the time, too,” Silbey said. “So it’s a tradeoff!”

Sarma said he was on board with the subcommittee’s call for faculty oversight. “The feedback is usually very good,” he said. “I have not felt that the faculty governance has impeded us at all.”

“We’re trying to respond to everyone,” Silbey said. We want to support this innovation, this experimentation, but we also don’t want to create something that doesn’t have the same kind of collegial engagement that normally happens. That’s our goal.”

MIT OpenCourseWare

is seeking energetic and creative candidates for two job openings posted on the MIT jobs site:

Department Liaison.

DLs recruit course materials from MIT instructors and publish these materials on the OCW site.

Project Manager, OCW Educator.

The Educator project adds supplemental material, such as instructor insights about teaching, to OCW course sites for educators around the world. Working closely with the OCW Publication Team, the Project Manager leads this project.

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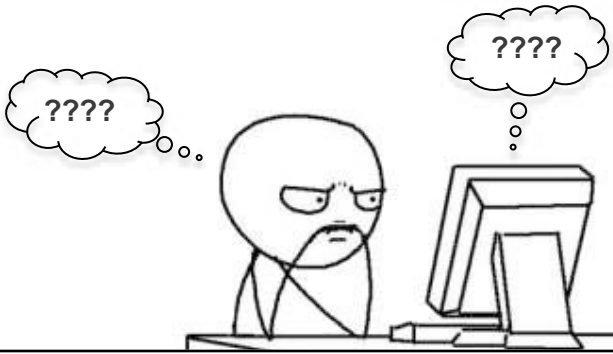
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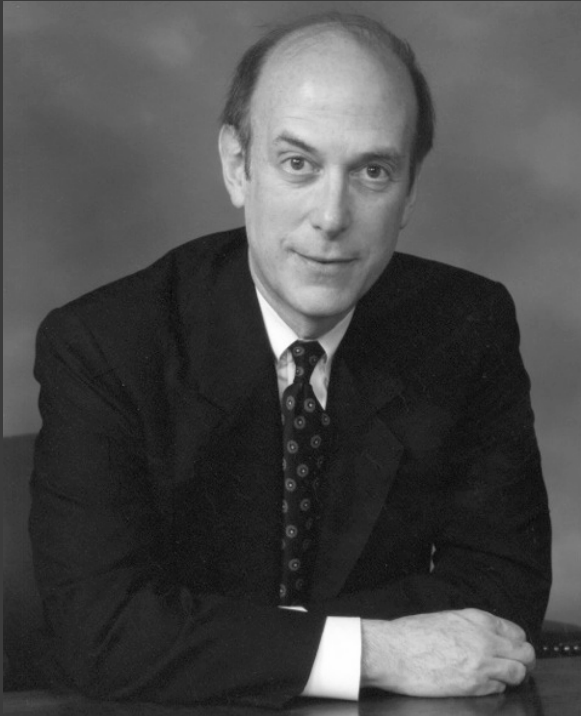
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Stephen J. Lippard
Arthur Amos Noyes Professor
Department of Chemistry

Tuesday, April 1, 2014
4:00 pm
Room 10-250
Huntington Hall



UAP/VP
elect talk
plans for
next year
Transparency & communication

UA, from Page 1

“These summits will assemble IFC, Panhel, and DormCon presidents as well as representatives from cultural groups and department associations,” Sharma and Ndengeyingoma wrote. “This will ensure a continuous flow of information, avoid misconceptions, and allow for diverse representation.”

The newly elected pair will also establish new programs they said would make the UA more effective. They plan to “hold meetings with all the undergraduate course presidents in one room to discuss how advising, tutoring and academic events is done in each of the majors.”

A new UA Advisory Board, Sharma and Ndengeyingoma said, would “be available to all students to discuss the workings of the UA and MIT administration” and “help resolve the stigma surrounding mental health and support resources and clarify common misconceptions and academic appeals to the Committee on Academic Performance and the Committee on Discipline.”

They also said they planned to work with administrators like Provost Martin A. Schmidt PhD ’88 and Professor Sanjay Sarma, the director of digital learning.

The election results were announced by the UA on March 21. Sharma and Ndengeyingoma claimed 946 of the 1787 ballots cast for their positions. The other tickets were for Andrew M. Acker ’15 and Grace E. O’Malley ’15 and for Jeffrey M. Sperling ’15 and Nathan H. Varady ’16.

Patents
for code?
Court hears case

Patents, from Page 1

pointed the justices to a flow chart in one of the briefs to explain how the method worked.

The patents were challenged by CLS Bank International, which says it clears \$5 trillion in foreign exchange transactions a day using methods to ensure that both sides performed. The Alice Corp’s patents, the bank said, merely recited “the fundamental economic concept of intermediated settlement of escrow.”

The justices considered only the threshold question of whether the Alice Corp’s ideas were eligible to be patented. The court has said that laws of nature, natural phenomena and abstract ideas do not qualify.

Solution to Crossword
from page 5

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

Real Madrid faces off against Borussia Dortmund

Real Madrid will be looking for redemption and Chelsea takes on Paris Saint-Germain

Soccer, from Page 16

formance for the two upcoming matches, then Atletico Madrid could very well be the team to advance. However, the safest bet seems to be that the two in-form teams will decide things in a penalty shootout.

Bayern Munich vs. Manchester United

On paper, this draw looks fairly straightforward. Coming into the quarterfinals, David Moyes' Manchester United seemed to be the weakest link and reigning champions Bayern Munich were stronger than ever. Manchester United threw the towel in for the race for the championship in the English Premier League a long time ago and right now it seems that they will fail to finish in the top four as well. They recently lost 3-0 to Manchester City to add to a series of lackluster performances. Their Champions League performance is not that thrilling as well. In the previous round, they initially lost 2-0 to Olympiacos. Despite facing the threat of elimination, they managed to turn things around in the second match by winning 3-0. This does not change the fact that there is a great difference between the Manchester United we've

watched in the previous years and this year's Manchester United under the guidance of David Moyes.

There is not much to say about Bayern Munich, other than the fact that they have nothing to worry about except the Champions League. With 7 weeks left in the German Bundesliga, they earned the title with a record of 25 wins and two draws in 27 matches. When they earned the title, they were 25 points ahead of their closest opponents, Borussia Dortmund. They beat Arsenal 3-1 on aggregate in the previous round and are more than ready for their next English opponent. With the Champions League the only thing they have to focus on right now and their all-conquering display of soccer, Bayern Munich are definite favorites against a struggling Manchester United.

Real Madrid vs. Borussia Dortmund

Real Madrid will face off against Borussia Dortmund in what is to be a rematch of last year's semifinals in which Robert Lewandowski pulled the plug on Real Madrid with his four goals in the match in Germany. However, coming into this match, Real Madrid seem to be the definite favorites. Real Madrid did face a

4-3 loss to Barcelona and a 2-1 loss to Sevilla in the La Liga and now sit in third place behind Atletico Madrid and Barcelona. However, they are still playing great soccer and tend to dominate the matches they play. They beat Schalke 04 9-2 on aggregate in the previous round in an utter display of dominance. Cristiano Ronaldo, Karim Benzema and Gareth Bale have been on fire recently and will definitely put on a show for the fans in this match-up.

Borussia Dortmund, on the other hand, haven't been playing in the consistency we've come to expect of them. This is evident by all the points they lost in the Bundesliga, thus allowing Bayern Munich an early championship title in the league. On the bright side, this means that all they have to focus on right now is the Champions League. Nevertheless, their Champions League performances haven't been all that consistent. They beat Zenit 4-2 in St. Petersburg, but then lost to them 2-1 in Dortmund. Zenit was one of the weakest links of the previous round as they had only six points coming out of the group stage, so losing to them at home is not a good sign for Dortmund.

Although it is not possible to write off Dortmund right now,

Real Madrid seems to be the closer side to the semifinals as they have a more consistent display of dominant soccer.

Paris Saint-Germain vs. Chelsea

This is another extremely difficult draw to decide. Paris Saint-Germain are currently in first place in the French Ligue 1 and have a comfortable lead over second place AS Monaco. They've managed to dominate in the Champions League as well by beating Bayer Leverkusen 6-1 on aggregate. However, their recent match against Nice, which resulted in a 1-0 win for the Paris side, did show that they still have some problems going into the match against Chelsea. As their manager, Laurent Blanc puts it, they are struggling to play efficiently on offense. The team does not seem in tune with each other despite the star-studded offensive line. Nevertheless, it is hard for players to concentrate in league matches when there already is a comfortable lead in the standings, so this far from perfect display may be explainable. Champions League soccer has another mindset, so the players may be fit to play in the matches against Chelsea and give it their all.

Chelsea under Jose Mourinho's guidance have been terrific. They've gotten some astounding results such as their recent 6-0 win over Arsenal. If it's one thing that Mourinho has Chelsea do the best, it is definitely applying pressure on their opponents and preventing them from even starting an organized offensive movement. The way they apply pressure allows Chelsea to get the goals they want and dominate the game. They have a talented squad filled with great strikers and creative midfielders. Despite all these positive features of the team, they've recorded two surprising losses in the past couple of weeks. They first lost to Aston Villa and then faced defeat against Crystal Palace. Thus, like Paris Saint-Germain, Chelsea, too, can sometimes display far from perfect soccer.

All that being said, Jose Mourinho's Chelsea seem to have a slight advantage simply because Jose Mourinho's team can bring the pressure when it has to.

The Champions League quarterfinals will showcase a set of closely contested matches and some great displays of soccer. The first matches of the draws will be on April 1 and 2, while the second matches will be on April 8 and 9. Mark your calendars!

SCHNITZER PRIZE



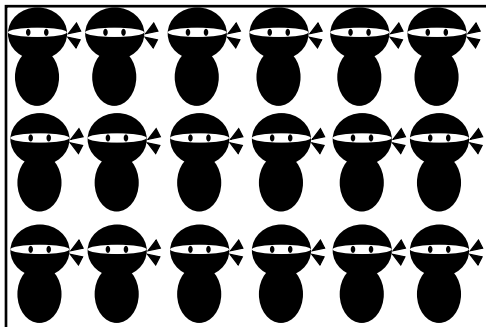
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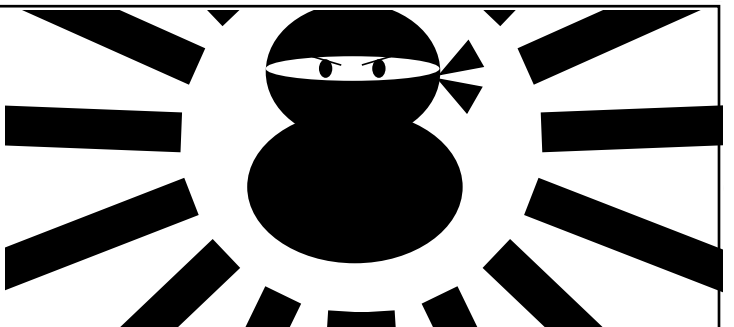
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Barcelona to face Atlético Madrid in tight clash

at the match-ups.

This draw is extremely hard to determine which way it will go. Despite a minor setback in February, Atletico Madrid have been absolutely phenomenal this year. The fact that they sit in first place in the La Liga this late in the season is evidence enough for the feat that they have accomplished this far in the year. They beat Milan in the previous round of the Champions League 5-1 on aggregate. They are in winning form to say the least and they are playing great soccer.

“Tata” Martino has failed to die down. The critics are right to a certain extent as Barcelona has had a slight fall from their old form and have not been performing at the standard we’ve come to expect of them consistently. This does not mean that Barcelona are still not a force to be reckoned with.

Soccer, Page 15

NEWMAC: MIT baseball records 8-1 and 2-0 wins in doubleheader

Solid starting pitching from Nicholas J. Locascio '16 and David A. Heskink '17 led MIT to a sweep of Clark University in a New England Women's and Men's Athletic Conference (NEWMAC) baseball doubleheader on Saturday, March 29. The Engineers took game one 8-1 before completing the sweep with a 2-0 victory that improved the Engineers to 7-3 overall and 4-0 in the NEWMAC. Clark fell to 4-13 and 1-4 with the losses.

Hesslink was outstanding in the second game of the day for MIT, throwing a complete-game, one-hit shutout in just the third start of his collegiate career. He allowed just a two-out single in the first inning to Daniel Lima, retiring 13 straight after the hit before issuing a walk to Brett O'Keefe leading off the sixth. He struck out five while allowing four walks as he improved to 2-0. Miles Sheehan also threw a complete game for Clark, giving up just the two runs on eight hits while striking out 11 in the pitchers dual.

MIT scored the only run it would need in the third when Jonathan E. Rea '14 laid down a bunt single to lead off. He then moved up to second on a groundout before Parker A. Tew '15 brought him around to score with a single to center. In the sixth the Engineers added another when Sean P. Karson '14 followed a double by Patrick E. Dayton '14 with an RBI

single to right.

In game one Locascio won his second straight NEWMAC start by allowing just one earned run over eight innings on seven hits while striking out seven without issuing a walk. Locascio allowed multiple hits in an inning just twice, while retiring the side in order three times as he improved to 2-1.

Creed J. Mangrum '12 got things going for the Engineers with a two-run home run to right in the top of the third. Clark made it a one-run game in the fourth when Daniel Lima led off with a single, stole second and then moved to third on a balk. With one down he scored when Michael Eglow grounded out to third.

MIT answered that run with a tally in the top of the fifth, loading the bases with one out on a hit batter, an error and a single. Nathaniel H. Rodman '16 then hit into a fielder's choice play that allowed the run to score. The Engineers tacked one more on in the eighth on an RBI single by Rea before putting the contest out of reach with four more in the ninth, highlighted by a bases loaded triple off the bat of Kyle J. Parent '15.

MIT is scheduled to play another NEWMAC game today. The Engineers will travel to Springfield College for a 3:30 p.m. contest. The Engineers and Pride will complete the game that was suspended in the top of the 15th inning last week prior to playing the regularly scheduled contest. Clark will also play a NEWMAC game today, hosting Wheaton College at 3:30 p.m.

Tuesday, April 1

Men's Tennis vs. Gustavus Adolphus

Women's Lacrosse vs. Framingham State University


4 p.m., DuPont Tennis Courts

7 p.m., Steinbrenner Stadium

Wednesday, April 2

Men's Tennis vs. Wheaton College

4 p.m., DuPont Tennis Courts



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