



LENNY MARTINEZ—THE TECH

A student takes a picture of a hack commemorating “Back to the Future Day” on Wednesday. The “flux capacitor” sat on a pedestal in Lobby 7.

Class council election had posters, free candy, and strong victor in end

New 2019 class president: elections take place too soon after students arrive at MIT

By Scott Perry

By a wide margin, John S. Brown '19 was elected president of the class of 2019 last week. Trevor L. McMichael '19 was elected vice president. Allison Fu '19 and Allison L. Nguyen '19 became social chairs, Muhammad E. Eltahir '19 and Sarah J. Wu '19 became publicity chairs, Emily C. Cimmino '19 became secretary, and Alexa K. Martin '19 became treasurer.

In stark contrast to the hair-thin margins seen in last year's elections, the victories this year were rather lopsided with all winning candidates finishing with comfortable double-digit leads. Four of the six positions were won by a margin of over 100 votes (two of those elections were uncontested).

Voter turnout dropped slightly from 55 percent to 50 percent, though it is still up from 2013 when

45 percent of freshmen voted. Campaigns this year distributed copious volumes of candy to freshmen and participated in extensive posterage as candidates tried to gain name recognition on campus. Social media also played a large role in the campaigns.

Face-to-face time still had a part, too. “It’s important for people to be familiar with you,” Brown, the presidential victor, said.

Since the election takes place in the thick of the school year, campaigning is a challenge for candidates. The problem is exacerbated by the fact that they have not yet had a chance to get acclimated to campus and meet fellow freshmen.

“I kind of wish they would push elections back a little so that people would have a little more time to meet each other,” Brown said.

Election, Page 3

Students meet to discuss dorm to be built in storage warehouse

Small windows, historic white lettering will remain intact

By Emma Bingham

STAFF REPORTER

On Monday, the Dormitory Council held a meeting about the current architectural plans for turning the Metropolitan Storage Warehouse on Mass. Ave. into an undergraduate dorm. The organization’s executives discussed the dorm’s proposed layout, addressed student concerns, and requested additional ideas.

How to bring natural light into the dorm was the first issue to be discussed. The facade of the warehouse cannot be changed for historical reasons, meaning both the

small windows and the large lettering on the side will remain. So, in order to allow sunlight in, the architectural plans include a feature called “light wells.” These are 13-to-15-foot-wide enclosed glass shafts that stretch all the way from the ground floor to the roof, allowing sunlight in. According to the current plans, residential rooms will each have one entire wall facing into a light well.

The second through fifth floors of the dorm will be mostly residential space. Residential floors will be split into suites composed of singles, doubles, triples, and quads, with about 10 students living in a

suite. Each suite will have its own lounge. The hallways will be wide enough that they will be called “atriums” and will be able to hold furniture. The dorm will house 416 students total.

Besides residential space, the dorm will include a dining hall, currently split between the third and fourth floors (with a servery on the third floor and seating on the fourth), a makerspace, a public study space, retail space (such as a bookstore or a cafe), a theater, a gym, bike storage, presentation spaces, and possibly other amenities.

Dorm, Page 3



DANIEL MIRNY—THE TECH

The Metropolitan Storage Warehouse.

IN SHORT

Quarter 2 PE classes begin next Monday, Oct. 26.

MIT Unicef Halloween Care Packages are available for purchase in Lobby 10 on Oct. 28–29.

Parent’s weekend is this coming weekend.

The UA Council will meet Wednesday, Oct. 28 at 7:30 p.m. in W20-400.

HallowMIT, a Halloween event for MIT families and children, will take place at the Zesiger Center from 2 to 5 p.m. Sunday.

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

WHY MEM DRIVE WAS CLOSED

Scenes from the Head of the Charles regatta. PHOTO, p. 9

I'M AFRAID SO

PhD Comics’ movie adaptation is a bit too relatable. ARTS, p. 5

COAST TO COAST

A student bikes across the country. CAMPUS LIFE, p. 4



SPIELBERG SPEAKS TO STUDENTS

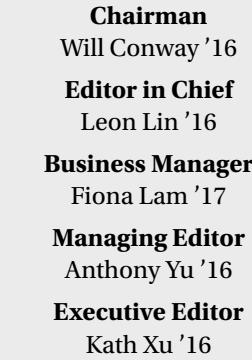
A transcript of a conference call about his new film. ARTS, p. 6

YET ANOTHER MOVIE ABOUT STEVE JOBS

An innovative portrait of an innovator. ARTS, p. 7

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The Tech (ISSN 0148-9607) is published on Thursdays during the academic year (except during MIT vacations), Wednesdays during January, and monthly during the summer by The Tech, Room W20-483, 84 Massachusetts Avenue, Cambridge, Mass. 02139. Subscriptions are \$50.00 per year (third class). **POSTMASTER:** Please send all address changes to our mailing address: The Tech, P.O. Box 397029, Cambridge, Mass. 02139-0209. **TELEPHONE:** Editorial: (617) 253-1541. Business: (617) 258-8324. Facsimile: (617) 258-8226. *Advertising, subscription, and typesetting rates available.* Entire contents © **2015 The Tech.** Printed by Turley Publications, Inc.

Up and down end-of-week weather

There will be a lot of variability in Cambridge's weather through the weekend as we experience a few different frontal passages. A warm front passing through will bring very warm weather this afternoon, with the high reaching into the low 70s °F. The warmth will be short-lived, however, as a cold front moves through tomorrow, dropping the high down to the mid 50s °F and the overnight low to around freezing. There is a chance of rain this evening and the possibly more rain on Sunday.

For those wondering what winter might be like this year, NOAA's (National Oceanic and Atmospheric Administration) winter outlook suggests that in New England, winter temperatures will more likely than not be above the average of the last 30 years. The same projection portends higher-than-average precipitation amounts, but that could still seem light to us after the experience of last winter. Due to the predicted strong El Nino, this winter should supply at least some drought relief to California.



Weather Systems	Weather Fronts	Precipitation Symbols	Other Symbols
 High Pressure	 Trough	Snow  Rain 	 Fog  Thunderstorm
 Low Pressure	 Warm Front	Light  Moderate 	 Haze
 Hurricane	 Cold Front  Stationary Front	Heavy 	Compiled by MIT Meteorology Staff and <i>The Tech</i>

Today: Cloudy. Winds 10–15 mph. High of 70°F.
Tonight: Clear. Winds 5–10 mph. Low of 44°F.
Tomorrow: Clear. High of 55°F. Low of 32°F.
Saturday: Partly cloudy. High of 56°F. Low of 43°F.
Sunday: Chance of rain. High of 60°F. Low of 40°F.

A sampling of people you'll meet during a typical dinner at *The Tech*:

Justine, Course 2	Lenny, Course 16
Michelle, Course 3	Katherine, Course 17
Jiahao, Course 6	Claire, Course 18
Patricia, Course 8	Jack, Course 19
Vivian, Course 9	Tara, Course 20
Amy, Course 10	Mirny, Course 21
Vince, Course 12	Karleigh, CMS
Fiona, Course 14	Alex, Course 22

We're everywhere!



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

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

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Dorm will have a dining hall, will be built to suit security

Light wells to supplement small windows in Met. Storage building

Dorm, from Page 1

nities. The sixth floor will be surrounded by glass, with a view of the Boston skyline. The presence of the dining hall will likely mean that students living in the dorm will be required to buy a meal plan, since that is the current rule for dining hall dorms, although it “hasn’t been discussed” yet, according to DormCon vice president Caitlin A. Heber ’16.

Security was another concern. In the current plans, there will be both a resident entrance and a public entrance on the first floor. The security desk will be just inside the public entrance. There will be public elevators that go to the dining floors and the sixth floor. There will also be private elevators for residents. DormCon representatives are pushing for the private elevators not to require card access in order to better facilitate visitors to the residential floors.

Students at the Monday meeting expressed a variety of additional concerns. How might the architecture influence the way floor or suite cultures develop? Will there be enough lounge space, and what will the best locations for such spaces be? Also, will the laundry room be big enough? Will security processes flow smoothly? Are the elevators and stairs in convenient places? How accessible will the makerspace be?

The plans are still very much in flux, according to DormCon president Yonadav G. Shavit ’16. DormCon is looking for input from students as to the layout and the usage of various spaces in the dorm. Additional meetings will be held in every dorm on campus over the next two weeks. Heber said that they are also looking for another member, “ideally a freshman or sophomore,” for the student committee in charge of advising the architects and MIT Facilities about the new dorm.

Candidates pledge to listen to ideas, remain accountable

Social chair: study breaks, mixers in 2019s’ future

Election, from Page 1

“Most freshmen haven’t even seen many of the candidates in person.” Brown also mentioned that the rigor of MIT coursework made finding time to campaign difficult.

Candidates still made sure to share their platforms and goals for the future. Social chair Allison Nguyen had a plethora of ideas for events she wanted to bring to campus “from cross-college mixers between MIT and Harvard, to a Casino Night, to a block concert with cool artists.” She emphasized that

she intended to “bring something different to campus” and listen to what the freshman class wants and make it a reality.

Class president: Sleep deprivation and isolation are among serious issues at MIT.

Brown also shared details about what he wants to see change

in the future. In addition to study breaks and intercollegiate mixers, he also wants to focus on more high-level issues like bringing the campus as a whole closer together. Brown said he made a point of communicating his goals specifically enough to be held accountable to voters.

Brown said that some of the more serious issues MIT faces include problems like sleep deprivation and isolation. He said that carefully considering the causes of these problems could help solve them.

Solution to Lights
from page 13

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Solution to Monday
from page 12

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PhD Comics' second movie adaptation is almost too relatable

If you are a frequent reader of the comics section of *The Tech*, you'll be familiar with *Piled Higher and Deeper*, the home of the chocolate-loving Cecilia, the consistently unproductive Mike Slackenerny, and our lovable, flawed, and forever lost-in-purpose Nameless Hero. These slice-of-life comics portray the unfortunate (for them) but hilarious (for us) day-to-day struggles of graduate students. A live-action film adapted from Jorge Cham's *PhD Comics*, *The PhD Movie 2* follows the paths of Winston, the Nameless Hero who is finally graced with a name, and Cecilia.

Winston is en route to his first research conference with the possibly fatal mission of presenting the culmination of four years of research to the grant-makers. The grant-grubbing, pretentious attitude of Winston's rival research group is a caricature of an unfortunately true situation in science.

Cecilia is faced with writing and defending her thesis in a matter of months, since her professor spontaneously decided to go on sabbatical. In the wake of all her stress, she resorts to various stashes of chocolate for nearly every situation. Her wonderfully

rendered collection ranges from “emergency chocolate” to “mom is calling chocolate.” Cecilia’s frantic fits of cleaning in an attempt to delay working on her thesis are all too familiar.

The struggles of the characters are extremely relatable for anyone who has been a student — even as undergraduates, we were still cringing and laughing during the showing because the things we were laughing at were the same things we encounter in life--all those little inner struggles that occur at 2 a.m. in the morning when your essay is due but all you really want to do is read more random articles about things unrelated to that essay and, wow, did you go through a whole bag of chips?

Although the film takes a slightly cynical look at the difficulties of being a PhD student and the world of research, as a whole it treats graduate student life positively. For Cecilia and Winston, their sacrifices and difficulties are worth doing what they love in research and serve to enrich their experiences. In a slightly sappy inspirational sequence, the esteemed researchers in the film serve as advisors to Cecilia and Winston, telling them that research is ultimately about discovery and bettering the world.

The jokes woven into the narrative are largely successful, but a few fall flat and veer into the domain of awkwardness. The one-liners at the beginning of the movie are especially theatrical — the long pauses between lines and undue emphasis and diction detracted from the intended jokes. However, the puns did pan out further on. Statistical and scientific literacy help with some of the smaller jokes presented in the film, but a vast majority of the jokes are accessible to students outside of science as well.

The *PhD Movie 2* is also stereotype-heavy, but we would argue that its use of stereotypes adds to the humor because it emphasizes the everyday ridiculousness of graduate student life. No *PhD Movie* would be complete without Prof. Smith's non-answers and his all-consuming concern for funding as well as Prof. Chu's (Prof. Jones in the comics) technological helplessness. The film builds on the stereotypes in order to fully flesh out the main characters — once their identities as scientists and researchers are laid out, the film proceeds to challenge the preconceived notions that accompany these professions.

Our major criticism was the out-of-

place, surprise romantic twist. Although it was cute and happy, the buildup toward the romance was disjointed, weak, and very much seemed like a subplot of a subplot.

The PhD Movie 2 is full of over-the-top humor and celebrates the trials of graduate school life. To fully appreciate the film, we would recommend reading the comics before watching. The film market for academia is woefully scarce, but add it to your list if you want an hour of laughing at your own expense (if you want or are in the process of getting a PhD, that is). By the way, we are still all for getting a PhD, but don't forget your emergency chocolate.

★★★★☆

The PhD Movie 2: Still in Grad School

Directed by Iram Bilal

**Starring Raj Katti,
Alexandra Lockwood**

MIT Federal Credit Union Seeks Candidates for 2016 Board of Directors Election

Our members own MIT Federal Credit Union, and with that our member-elected, volunteer Board of Directors formulate and support decisions with our members' and the MIT Community's interest at heart.

MIT Federal Credit Union's nominating committee is currently seeking credit union members who are interested in serving on the Board of Directors. **Three 3-year terms and one 2-year term** on the board will be open for the 2016 election in the spring.

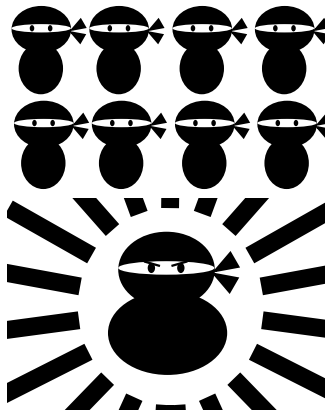
The application deadline is Friday, November 20, 2015.

Visit mitfcu.org/election to learn more about the MITFCU Board and director responsibilities.



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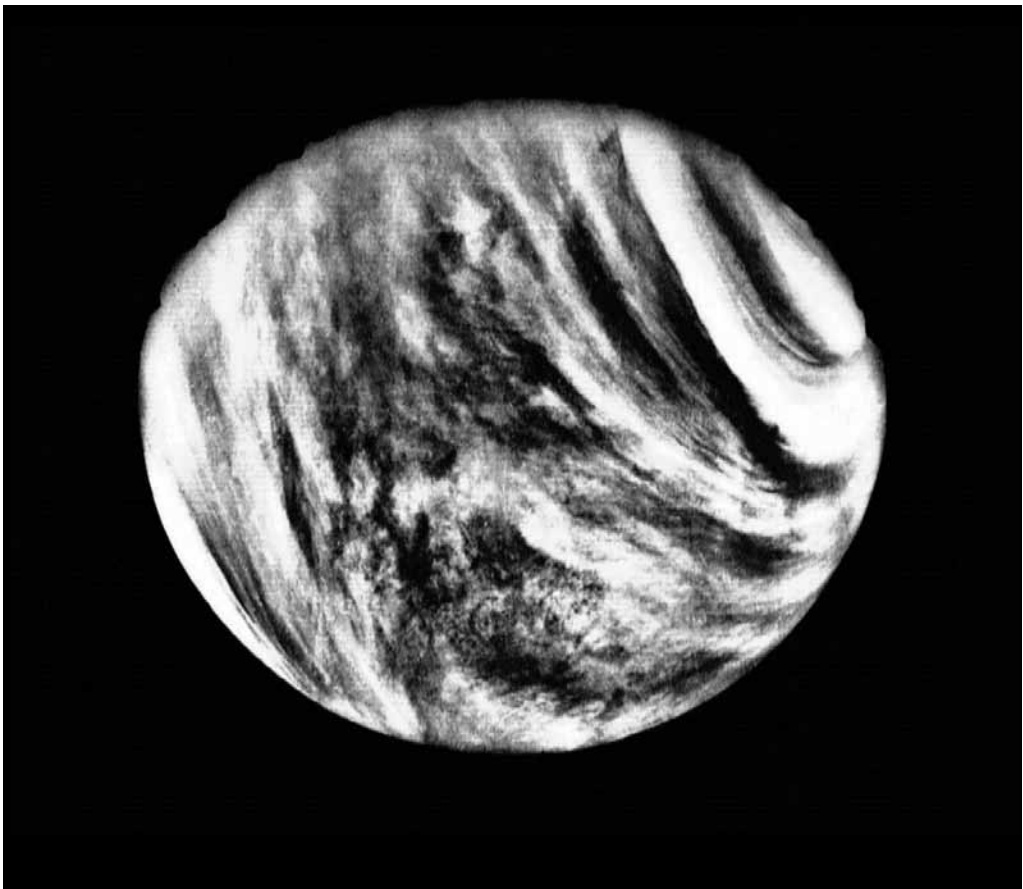
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The Tech talks to Steven Spielberg

By Ray Wang
STAFF WRITER

Spielberg now brings the intrigue of the Cold War to the big screen in his epic drama, Bridge of Spies. The Tech participated in a college conference call in which Spielberg discussed the historical inspiration for his latest film, as well as his collaboration with actor and longtime friend Tom Hanks.

Steven Spielberg: Well, to begin with, my imagination has always been my best friend. especially when I was younger and making all those early movies ... But when I became a dad for the first time, life took a very serious turn. I just became concerned about something I was never concerned about, which was the future of my children because I didn't [previously] have any children to be concerned about.

When I started having kids, it made me look ahead, and then that forced me to look back 'cause I've always loved history. I excelled in history at school — probably not much else. I was a good history student and I've always said to my kids, you can't go forward unless you know where all of us collectively have been. So I've always had this interest in historical subjects, in biographies, but I never really turned to that until I got serious about being a parent.

SS: The most challenging [scene] for

"You can't go forward unless you know where all of us collectively have been."

SS: Quite often I do a movie like I've never [done before]. I do a [genre] I've never done before. I never did anything like *Saving Private Ryan* before. I never did anything like *Schindler's List* before. I never made a movie like *Jaws* before or *Raiders of the Lost Ark*. I mean there were so many movies that, for me, were complete firsts. There were other movies like the sequels to the adventure movies or the sequels to the dinosaur movies that are no less challenging, but the originality and concept are not as exciting as or as dangerous as the first ones were.

Q: What makes Hanks a uniquely talented individual to work with?

SS: I've been blessed with some great actors in my long career and I've never really had to work with an actor who I was friends with first. There was jeopardy for me in getting into the professional world with somebody who I was very close to in the personal world ... My company had produced several of Tom's movies in the 1980s, and then Tom

So when I made my first movie with Tom, *Saving Private Ryan*, we were both a little bit nervous. But we worked together almost like we were sharing a brain and it [was] that way on the next three films following *Saving Private Ryan*. One of the happiest experiences I've ever had with Tom was on this last film, *Bridge of Spies*, and it's simply because Tom is an honest actor, which means that he doesn't have to act. If he understands the character, he exists in clothing and in the persona of that character without having to work very hard.

The Tech: You have a motif of ordinary people being thrown into extraordinary circumstances, like Oskar Schindler in *Schindler's List* and Captain John Miller in *Saving Private Ryan*. What draws you to these characters?

SS: Well, what draws me to the characters is the fact that they are all of them unaccustomed to the jobs they're doing. Even Abraham Lincoln had never run into such a divided Congress as we are all experiencing [now], and the mission that Captain Miller was given [was] to go find some kid whose brothers were killed and send him home, and that was something he had never experienced before.

"These stories about characters experiencing something profound and dangerous for the first time really hook me as a filmmaker."

This insurance lawyer, [Donovan], suddenly being invited to defend the most unpopular person of his time in this country, Rudolph Abel, and subjecting his family to tremendous scrutiny and criticism and even danger — all of these stories about characters experiencing something profound and dangerous for the first time really hooks me as a filmmaker and makes me want to tell those stories.

SS: Well, you know, the music is really important. It's very important to me 'cause I've had a 40-year collaboration with the great John Williams, and he's done all of my movies except two: *The Color Purple* and this one. He only didn't do this one because he had a slight medical procedure right as he was supposed to write the music, and he had to take a seven-week break before coming back to finish the score for J.J. [Abrams] on Star Wars. But, I decided not to have any music for the first 35 minutes of *Bridge of Spies*, and I rarely do that.

I usually have a lot of wall-to-wall music in my movies 'cause I think music tells a second story. They really are able to help us perform our own emotions. You know, they are a really great way of just guiding us emotionally along with the performances and

The intention between John and myself was not to have music in the first half hour of this film. So, when I hired Thomas Newman to do the score, he agreed that we should see if we can allow New York City and the sounds of New York to be the musical score for the first half hour. I do that rarely, but I really enjoyed doing it this time.

SS: The second we get involved in a movie, we forget all the history, and even though we all know that there was never a thermonuclear exchange between the Soviet Union and the United States — otherwise I wouldn't have a chance to make this movie 'cause none of us would be here — a movie casts a spell. All movies cast spells. Not just my movies, but every movie casts a spell [on] all audiences if they get involved enough in the characters and the story. They suspend their disbelief, and part of that suspension of disbelief means canceling what you know about what really happened in the world.

You allow yourself to imagine, "Could a third World War result if Donovan's negotiations are not successful in retrieving Gary Powers from the Soviet Union?" And that's just the magic of audiences and how we couldn't make movies — I couldn't be a storyteller unless I had audiences [allowing] me to tell these stories and accepting these stories even though they know what

really happened in history and we weren't all annihilated.

Q: How do you manage to keep people's attention without conforming to cookie-cutter style movies that are becoming big?

SS: Well, sometimes I will conform to it like when I produced a movie like Jurassic World. We'll conform, for instance, to the first Jurassic Park and design a film which is tonally very much like the movie I directed in 1993 and sort of trade up on the nostalgic factor. But for the most part, I never compare my stories that I'm interested in directing to movies that are being made today, or even [ones] made a hundred years ago.

[Sometimes], a story speaks to me, even if it doesn't speak to any of my collaborators or any of my partners, who look at me and scratch their heads and say, "Gee, are you sure you wanna get into that trench for a year and a half?"

I love people challenging me that way because it's a real test about my own convictions and [whether] I can be the standing man of my own life and take a stand on a subject that may not be popular, but that I would be proud to add to the body of my work. That's pretty much the litmus test that gets me to say, "Yeah, I'll direct that one."

This interview transcript has been edited for brevity and clarity.



Tom Hanks and director Steven Spielberg on the set of *Bridge of Spies*.

The Tech is collecting successful application essays (**hint: yours!**).

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MOVIE REVIEW

Framed in conversation: *Bridge of Spies*

A historical drama that's classic Spielberg, from characters to camera

By Ray Wang
STAFF WRITER

The Glienicke Bridge, today a mundane cantilever thoroughfare, was once a gateway between East and West Berlin, between two ideologies opposed for decades on the brink of war. Yet, instead of the Glienicke's becoming a Cold War battleground, it was a symbol of freedom and diplomacy. At its midpoint, high above the Havel River, dozens of captured agents crossed over to their countrymen on the other side between 1962 and 1986. Its four prisoner exchanges between the Soviets and the West across two decades, seminal moments in Cold War history, gave rise to the Glienicke's enduring alias — the Bridge of Spies.

Steven Spielberg's epic drama is the latest in an illustrious film career that spans more than four decades, and it feels like well-trodden ground for him. He is no stranger to depicting pivotal events in history, and he's very comfortably in command for this entire film.

The lead, James Donovan, played by

Tom Hanks, finds himself in extraordinary circumstances: an insurance lawyer, he's called upon by his country to defend a Soviet spy and later to negotiate the first Cold War prisoner exchange. Donovan, a believer in the unqualified privilege of justice, doesn't take this on lightly. He mounts a solid case against overwhelming odds, fighting for the Constitution in his battleground of judges and juries.

Hanks and Donovan are really just cut from the same cloth, which is what leads to Hanks' convincing performance. They're both family men, immeasurably kind and morally upright, and Spielberg didn't need to think twice about asking Hanks to come aboard.

Donovan's client, the elderly spy Rudolf Abel (Mark Rylance), actually achieved nothing of significance during his eight years of espionage in New York. But after he's captured, he has the whole panic-stricken country clamoring for his head.

Rylance, a three-time Tony winner, brings charisma and humanity to a challenging character. Though Abel was the

most hated man in America, he nevertheless elicits the most respect from the audience. He's a soldier, and behind enemy lines, he is unflinching in his commitment to his mother country. Abel and Donovan reflect each other, and their unbreakable characters are drawn to each other in a genuine friendship. As Donovan commits to continuing to fight for his client, Abel calls Donovan a "standing man," one who remains upright against ever-stronger blows. Abel, though himself physically and verbally feeble, is steely in his resolve.

But, for *Bridge of Spies*, screenplay is a fraction of a whole. The Coen brothers' script fully comes to life through Spielberg's hallmark directing.

Spielberg's use of light and shadow is particularly breathtaking. Lighting frequently washes out scenes, turning human profiles into dark silhouettes. Spielberg has done this throughout his career, but never more prominently than in *Bridge of Spies*, where light is amplified to give a surreal sensation to mundane surroundings.

Another trademark is his creative use of mirrors and reflections — to create a unique self-portrait of a character, as in the opening sequence with Abel, or to capture another piece of the scene in a visually distinctive way. It's thrilling to see Spielberg at his filmmaking apex, when his years of dedication have solidified into consistently beautiful camerawork in collaboration with longtime friend and cinematographer Janusz Kaminski.

Spielberg's brilliance is in his precision at conveying the nuance of conversation to the audience. What's daunting for even the most prolific directors? Composing and framing lengthy conversations for the purpose of advancing the plot, while keeping the audience fully engaged. But it takes more than experience to create the ambience that Spielberg does. One-on-one conversation occupies half of the film, yet you hardly have a second to drift off. Each exchange is a chess game — who wins, who loses, who gains ground, who concedes? It's Spielberg's framing of the shot that provides these clues.

Take, for example, Donovan's introduction. We encounter him sitting on a plush

★★★★★

Bridge of Spies

Directed by Steven Spielberg

Starring Tom Hanks, Mark Rylance

Rated PG-13

Now Playing

couch in a lavish parlor, a lamp by his side as soft jazz plays in the background. Symmetrically opposite him is his verbal foe, another insurance lawyer. Everything about the shot is immaculate: how Donovan quickly displays his linguistic prowess, how the camera angles show he has the upper hand. This one scene sets the stage perfectly for an entire film about a war fought in conversation, with information and words rather than weapons.

Again, later in the film, as Donovan meets with Abel after the trial has ended, one shot tells us so much. Peering into the sparse, concrete cell where the two dark profiles are seated against a blinding backdrop of sunlight, the camera lingers behind a three-paned window. Donovan is framed in the right pane, Abel in the left, and stark void in the center. Though they've gained a victory, there is little sense of relief in the space that hangs between them. Foreshadowing the tense events to take place in Berlin in the latter half of the film, the American and the Soviet know that there is no chance of rest in this turbulent era.

Bridge of Spies, an Oscar-contender before it even hit theaters, is reliably outstanding on all fronts and manifestly imprinted with Spielberg's trademarks. Adding to his impressive repertoire of historical dramas, Spielberg again captures another era for modern audiences. But, as his audience has come to expect such flawless work from Spielberg over the years, it remains to be seen where he can go to break new ground.



Tom Hanks stars in *Bridge of Spies*.

MOVIE REVIEW

A visionary icon, closed end-to-end

Michael Fassbender stars in a formally innovative portrait of Steve Jobs

By Aleksandra Stankovic

It is undeniable that Steve Jobs, through the technical innovations he spearheaded as the head of Apple Inc., profoundly impacted the way we relate to our machines and, through them, to each other.

Since his death in 2011, he has become an object of cultural fixation, coalescing debates on the ethics of genius and the morality of creativity in business. Accounts of his personal life and his contradictory nature in relationships continue to fascinate: how could a man so pivotal in forging the emotional attachment between humans and their digital devices have had so much trouble navigating emotional attachments of his own?

Eschewing the traditional narrative structure of conventional biopics, *Steve Jobs*, the film, offers an evocative portrait of its namesake. The film is not the first attempt to explore the complex character of Steve Jobs on screen, following on Alex Gibney level-handed 2015 documentary *Steve Jobs: The Man in the Machine* and 2013's poorly received *Jobs* starring Ashton Kutcher. It is, however, the most formally audacious.

Elliptically covering 30 years of Jobs' personal history, as well as the evolution of personal computing, the formal structure of the film is driven by repetition and parallelism. The movie is divided into three acts, each transpiring backstage in the minutes before a key product launch: the 1984 Macintosh unveiling; the debut of the educational computer company NeXT in 1988; and the premiere of the iMac in 1998, after Jobs' triumphant return to Apple.

Each segments roughly follow the same format, revealing the conversations between Jobs and the same group of characters across

each time period — Joanna Hoffman (Kate Winslet), his devoted head of marketing; Jobs' eldest daughter, Lisa (played at various ages by Perla Haney-Jardine, Ripley Sobo, and Makenzie Moss); Apple co-founder Steven Wozniak (Seth Rogan); and Apple CEO John Sculley (Jeff Daniels).

Given that the majority of the film takes place inside closed rooms, with wordy exchanges between a small cast of characters constituting the story in place of action or plotting, the movie can feel quite stagey. This is probably a testament to the theatrical sensibilities of screenwriter Aaron Sorkin (*A Few Good Men*, *The Social Network*, and TV's *The West Wing* and *The Newsroom*), here working broadly from Walter Isaacson's authorized Jobs biography. Frenetic and dialogue-heavy, the script is, classically and quintessentially, Sorkinesque, with lots of walking and talking and fast-paced verbal sparring. Real people don't talk like this — this cleverly or this quickly — but the film sure makes you wish they did.

Sorkin's script is well partnered with Danny Boyle's strong direction. The movie may initially seem like something of a stylistic departure for Boyle, whose films tend to be visceral and kinetic (*Trainspotting*, *Slumdog Millionaire*, *127 Hours*), but the action has been replaced by rapid dialogue, the quick cutting substituted by the fast rhythms of language, and some familiar visual flourishes still emerge.

In the various press surrounding the film, Boyle has repeatedly made clear that his film is not meant to be a representational biopic, but rather a subjective portrait. To this extent, it doesn't matter that Fassbender doesn't physically resemble Jobs, or that Winslet's character is more a composite of several women in

Jobs' life. The actors portray their roles terrifically, with grace and restraint. As the scenes build on one another, the characters become metaphoric, familial archetypes: Winslet's character refers to herself as Jobs' "work-wife," Daniels' character is explicitly referenced as Jobs' "father figure," and clear fraternal lines are drawn between Jobs and Wozniak, who represent opposing ideological perspectives on the democratization of computing (closed end-to-end control in the design process versus an anarchical, user-driven customization, respectively).

Midway through the film, a young Lisa mentions to her father that she's listening to different versions of the same song on her Walkman. And that perhaps best describes the structure of the film itself, and also perhaps our collective fixation on telling, and retelling, the Steve Jobs story — a repetition of our frustrated connection with this public figure whose vision has shaped much of the way



Steve Jobs (Michael Fassbender) and Steve Wozniak (Seth Rogen) in *Steve Jobs*.

★★★★☆

Steve Jobs

Directed by Danny Boyle

**Starring Michael Fassbender,
Kate Winslet, Jeff Daniels,
Seth Rogan**

Rated R

Now Playing

we interact with technology, each other, and ourselves. Intimate yet unknowable. Close yet separated. Like trying to connect with someone through a computer screen.



OLD SKOOL

Sigma Kappa hosted Late Night on Sunday, October 18. This year's theme of Old School saw groups throwing back to the 70s, 80s, and beyond. The event was a part of their philanthropy efforts and all proceeds went to Sigma Kappa Foundation, supporting Alzheimer's and Gerontology and the Maine Sea Coast Mission.

Photography by Lenny Martinez





HEAD OF THE CHARLES REGATTA 2015

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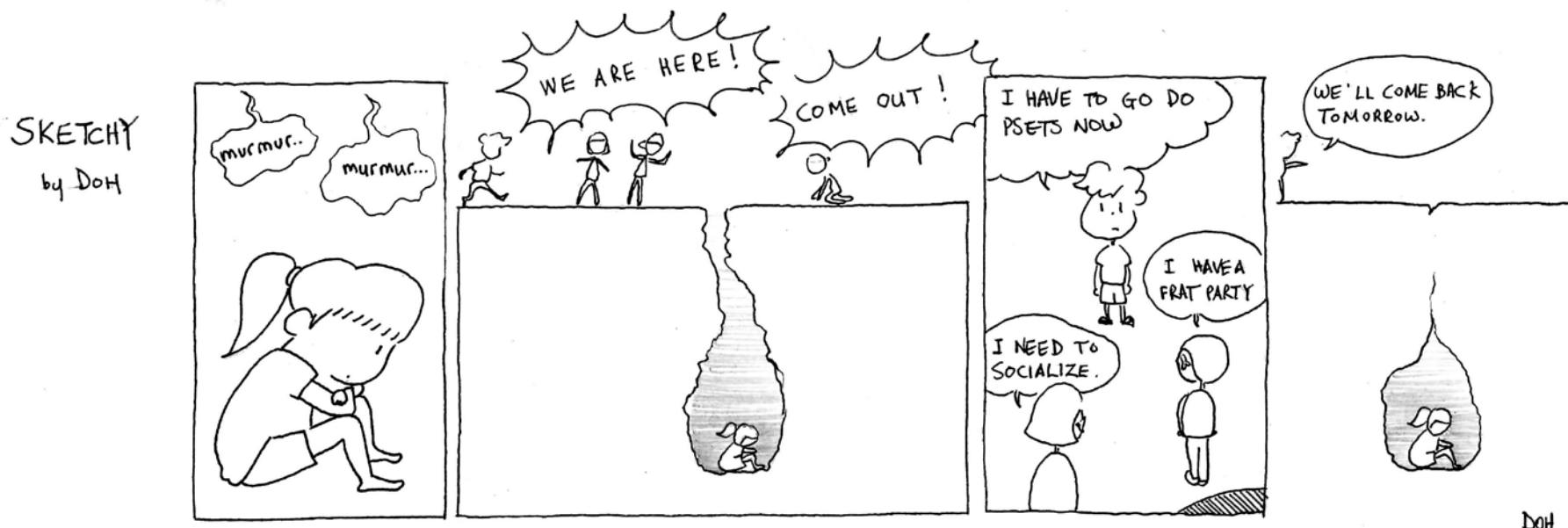
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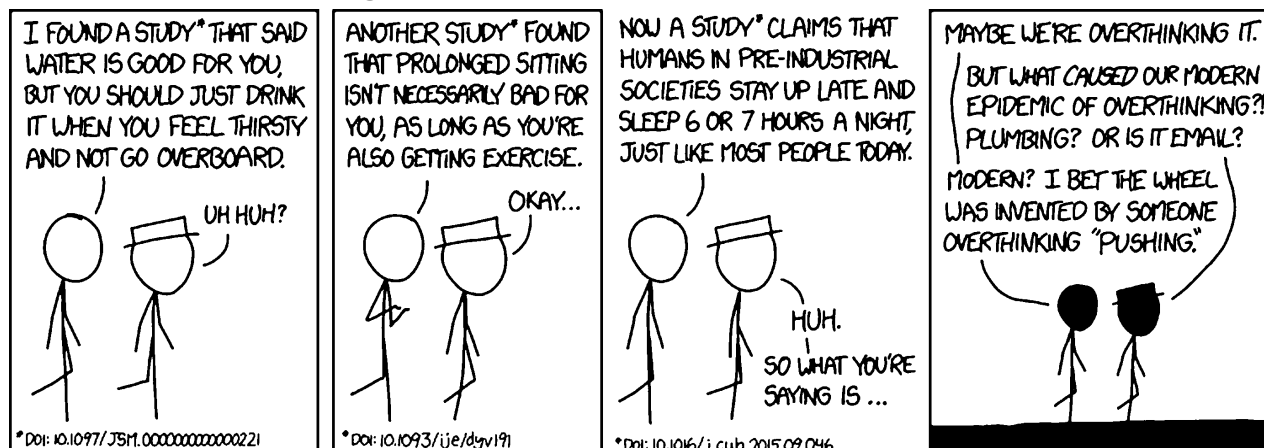
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DOH

[1592] Overthinking



On the other hand, it took us embarrassingly long to clue in to the lung cancer/cigarette thing, so I guess the real lesson is “figuring out which ideas are true is hard.”

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Math pset

Solution, page 15

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

Chemistry pset

Solution, page 15

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

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.

Physics pset

Solution, page 15

12x		360x			
		48x			5
12x				30x	
21+		1-	60x		1-
				12x	
	2-				3

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.

Biology pset

Solution, page 15

2÷		17+			
4		144x			6
11+			90x		1
6x				18x	
	30x		6		20x
		1-		4	

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.

See The Lights

by Billie Truitt

Solution, page 3

ACROSS

- 1 Mama’s spouse
- 5 Backtalk
- 9 Congressional TV channel
- 14 GPS recommendations
- 15 Spill the beans
- 16 Make amends
- 17 Abide by
- 18 Neighborhood
- 19 Cockpit boss
- 20 Bring to LIGHT
- 22 Signs of things to come
- 23 Radio interference
- 24 Soybean product in soups
- 26 Line of stitching
- 29 Recently
- 33 Assume the part of
- 37 Dixieland music
- 39 India’s continent
- 40 __ cheese dressing
- 41 Boat that’s paddled
- 42 Pie pans
- 43 Short hit in baseball
- 44 Waffle cooker
- 45 Irritable
- 46 Very popular

- 48 Give a makeover to
- 50 Three-layer cookie
- 52 Accompany
- 57 Barton of the Red Cross
- 60 Make LIGHT of
- 63 “I’ve __ up to here!”
- 64 Lasso
- 65 Prefix for physics
- 66 Astound
- 67 At any time
- 68 Hat’s edge
- 69 Domesticated
- 70 Religious faction
- 71 Staircase part

DOWN

- 1 High school dances
- 2 Facing the pitcher
- 3 “__-boo, I see you!”
- 4 So far
- 5 Point of view
- 6 Aviation prefix
- 7 Whole lot
- 8 Point of view
- 9 Finish fittingly
- 10 LIGHT a fire under

- 11 Fishing rod
- 12 Author unknown, for short
- 13 Earns after taxes
- 21 Smooch
- 25 Leak slowly
- 27 Not quite closed
- 28 Stately home
- 30 Without a warranty
- 31 Windshield coloration
- 32 Not at all difficult
- 33 Shortened form of a wd.
- 34 Hint
- 35 Take care of
- 36 Give the green LIGHT to
- 38 Postal district
- 41 Give as an example
- 45 Throw lightly
- 47 Gave a speech
- 49 Sahara, for instance
- 51 Folklore monsters
- 53 Hair untanglers
- 54 Out in the open
- 55 Knot again
- 56 Vagabond
- 57 Make small talk

1	2	3	4		5	6	7	8		9	10	11	12	13
14					15					16				
17					18					19				
20				21						22				
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33	34	35	36			37		38			39			
40					41						42			
43					44					45				
46				47			48		49					
				50		51			52		53	54	55	56
57	58	59				60	61	62						
63						64					65			
66						67					68			
69						70					71			

- 58 The Dalai __
- 59 Eden guy

- 61 Valentine sentiment
- 62 Oil cartel initials

MIT announces broad climate change ‘action plan’

Climate change, from Page 1

and treasurer. “This would retard rather than encourage the open collaboration and ability to hear new ideas that are central to our research relationships, central to our ability to help government and business think creatively together, and central to our ability to convene and inform the thinking of those with opposing views.”

Nonetheless, Vice President for Research Maria T. Zuber said in an interview with *The Tech*: “We treated [the divestment matter] very seriously. We thought very hard about whether we should divest from something, anything, some things.”

Ultimately, Zuber said, given the magnitude of the climate change problem, “we came to the conclusion that MIT couldn’t do it alone” — that “engaging” industry would be key to developing solutions, and that “by disengaging, [divestment] would hinder our ability to convene all of these people at the same table.”

In a press call, both Zuber and Reif said they did not know how much of MIT’s endowment is invested in fossil fuel companies. The decision not to divest was based on other factors, they said.

Figures cited by the *Boston Globe* put investments in fossil fuel companies at about 5 percent of MIT’s portfolio.

Among the MIT’s Climate Change Conversation Committee formed last year, a three-quarter majority supported targeted divestment from companies whose operations are “least compatible with mitigating climate change,” includ-

ing coal and tar sands companies. Stanford announced last year that it would divest from coal-mining companies.

Yet coal companies “ought to be at the table” too, Zuber said, though MIT does not currently partner with coal companies. “We have a better chance of engaging them by not divesting than by divesting.”

Fossil Free MIT, a student group advocating for divestment from fossil fuel companies, was dissatisfied with the decision not to divest. The group’s press release said of the plan: “It’s too little, too late.”

Zuber said MIT must ‘engage’ industry: ‘We came to the conclusion that MIT couldn’t do it alone.’

A week before the announcement, FFMIT member Geoffrey Supran told *The Tech* that “it would be a travesty if MIT were to fail to do all that it could to rise to the climate challenge — including divestment — because it was held financially hostage by the fossil fuel industry,” adding that “such a failure would itself evidence the stranglehold that these companies have on climate leadership.”

“At the end of the day, we got completely ignored without any forewarning,” Supran told the Associated Press on Wednesday. “Our sense is that essentially MIT has put money before morals and its stu-

dents’ futures.”

New sponsored research in environment and energy

The core of MIT’s climate action plan will be coordinated by the Environmental Solutions Initiative (ESI) and the MIT Energy Initiative (MITEI).

ESI will support research on the science behind climate change as well as strategies for adapting to its impact. The ESI announced a new director, John E. Fernandez ’85, on Monday.

And through MITEI, MIT said it will seek \$8 million — every year for five years — from a “diverse group of companies” to fund each of eight new research centers for low-carbon energy.

The first five centers will be the Solar Center; the Center for Energy Storage; the Center for Materials for Energy and Extreme Environments; the Center for Carbon Capture, Use and Sequestration; and the Nuclear Energy Center.

The plan to bring in more than \$300 million for these centers builds on the growth of the MITEI, which has attracted funding commitments totaling \$600 million since its founding in 2006, according to MIT.

The joint statement sought to highlight MIT’s “history of engagement” with industry and government. “Fossil fuel companies have consistently been among our most productive research partners,” the statement said.

Currently, MITEI’s top sponsors are oil and gas companies BP, Eni, ExxonMobil, Saudi Aramco, and Shell.

The new centers will also seek support from “firms from the developing world unfamiliar with academic collaboration” — companies that might not otherwise have the resources to contribute to a university research program like MITEI, which has minimum requirements for sponsor membership.

“Their voices are extremely important,” Zuber said. “Any solution has to take into account both the developed world... and the developing world, that wants to develop energy systems to have economic growth and a better standard of living.”

Sustainability on campus

The report includes plans for improving campus sustainability by ending the use of fuel on campus by 2019 and reducing campus greenhouse gas emissions by 32 percent by 2030.

A plan for “carbon shadow pricing” will also go into effect on campus to experiment with the effects that accounting for carbon costs would have on Institute decision-making.

“I was really surprised that we had a pretty strong consensus for carbon pricing,” Zuber said. “It’s very complicated to put a price on carbon on our campus operations, so we decided we would practice by trying to carry a price for carbon on the major things, and that would factor into our decision making as far as renovation goes.”

She added: “We were very sensitive to the fact that some people, to do their research, might take more energy. If someone lives in an older dorm, we don’t want to penalize

them for living in an older dorm.”

On-campus carbon pricing also emphasizes personal responsibility — which Zuber says was part of Reif’s intention.

“[Reif] is very big on personal responsibility,” she said. “Don’t go tell MIT what they should do — what are you going to do? He’s really asking all of us this question of what are we going to do.”

Ultimately, Reif said, the report makes a call to the whole of the MIT community. “If we can all work together and work with others, we can say with a great deal of pride some decades from now, that we were able to start something that solved the problem. So this is really a call for all of us to work together to implement this plan to solve the problem.”

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Solution to Math

from page 12

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

Solution to Chemistry

from page 12

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

Solution to Physics

from page 12

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

Solution to Biology

from page 12

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

Solution to HASS

from page 13

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

MIT's First Energy Hackathon!

The Energy Hackathon is a chance to work on problems posed by companies and experts in the energy field in a team hackathon and makeathon style. This is first Energy Hackathon at MIT and a great opportunity for undergraduate and graduate students interested in energy to come together and solve problems. Registration is open to undergraduates from any college.

Different energy related companies, government officials and faculty will be present during the hackathon to present workshops and watch hackers solve the problems. Hackers choose from three tracks: energy access, energy efficiency and energy waste.

The event will start on Friday, November 13th in room 10-250 at 6:00 p.m. and end the afternoon of the 15th. Registration entitles hackers entry to an initial mixer Friday and food over the weekend. Materials will be provided.

To sign up for the MIT Energy Hackathon, visit energyhack.mit.edu when registration opens. Numbers are limited, so sign up soon! Come meet and work with your peers who want to secure our energy future! Choose a team! Choose a track! Change the world! Registration will open soon, so don't miss out!

For more details, visit energyhackathon.mit.edu or join the MIT Energy Hackathon Facebook page.

Next House rebuilds and redesigns haunted house escape challenge

For the second year in a row, the Next Haunt student group will host a Halloween-themed escape-the-room challenge.

Next House residents are hard at work building a two-story haunted house in the dorm's basement. When finished, the room will be able to fit a team of four to six people, who must solve the house's puzzles in order to escape.

The Next Haunt team is reusing the material from the exterior of last year's house, but has completely redesigned the interior and promises a whole new set of puzzles.

The team has also added some polish to the room's decor this time around.

"The house was built and planned in a month last time. We weren't really concerned with making everything look good," Next Haunt art director Clare Zhang '16 told *The Tech*. With the extra time this year, the art team can devote more attention toward giving the house an appropriately creepy personality.

Sturdy prop construction has also been a priority. Ben Mattinson '16, Next Haunt producer, recalled that at last year's haunt, "someone backed into a table

and broke it — people in the house can get a little jumpy."

To ensure the safety of players, Next Haunt uses cameras to monitor the inside of the house and keep the event running smoothly.

Beyond running the event, constructing a 240 sq. ft. house in the Next's basement presents its own set of difficulties. The Next Haunt team worked closely with MIT Environmental Health and Safety (EHS) to ensure the soundness of the room and its construction site. According to Zhang, "a gigantic packet of details and plans" was required to

gain the administration's approval. Together, Next Haunt and MIT EHS covered everything from the house's structural safety to the basement's emergency exits. An architect from an outside firm was even called in to inspect the building's plans. The extensive planning seems to have paid off, and construction is proceeding smoothly.

Next Haunt will run on Oct. 30, Oct. 31, Nov. 1, Nov. 6, and Nov. 7. Mattinson encourages participants to sign up early. Last year, all team slots were booked completely.

—Christopher Wang





Got a lot on your mind?

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