thetech.com

Volume 139, Number 10



WEATHER, p. 2 FRI: 63°F | 56°F Chance of showers SAT: 64°F | 52°F

Thursday, April 18, 2019



MIT's Class of 2021 received their Brass Rats at Ring Delivery Tuesday evening in the State Room in

Students continue to voice concerns on next year's minimum meal plan

Petition to change minimum plan back to 125 meal, 290 dining dollar plan receives over 1,074 signatures

By Rujul Gandhi ASSOCIATE NEWS EDITOR

The recent change to the minimum upper-level student meal plan in dining dorms continues to receive negative feedback from students. Students have raised concern through a petition to MIT Dining as well as at a meeting of the House Dining Committee (HDC) on April 4.

The petition to MIT Dining to change the minimum meal plan back to the 125-block plan was started a week ago by Emily Larson creased prices, reduced dining dol-'22. It has since gathered 1,074 signatures, as of the time of this issue's publication.

A meeting of the HDC on April 4 discussed the new meal plan for next year. Students spoke to administration and dining staff about their concerns about the new meal plan, which increases the minimum number of meals per semester to 150, from 125. It also reduces the amount of dining dollars from \$290 to \$100 per semester. Students' concerns included inlars, and lack of good lunch options on campus.

The meeting was attended by students from Next House, Maseeh Hall, Simmons Hall, and McCormick Hall; the Baker Head of House; dining staff; Division of Student Life staff; and Bon Appetit staff.

According to the meeting minutes, dining staff said that the rationale behind the change was "feedback from students and heads of

Dining, Page 2

Social Implications, Academic Degrees groups hold forum Co-chairs discuss ethics, inclusive

teaching, interdisciplinary majors

By Soomin Chun

The co-chairs of the Social Implications and Responsibilities of Computing and Academic Degrees working groups of the College of Computing held a joint forum Wednesday morning. These forums are part of the working groups' mission to develop ideas and options for the college with the aim of producing a report in May. They discussed ethical considerations in engineering, an inclusive approach to teaching computation, and the effectiveness of interdisciplinary majors.

Co-chairs Julie Shah '04, associate professor of aeronautics and astronautics, and Melissa Nobles, dean of humanities, arts, and social sciences, represented the Social Implications and Responsibilities working group. Co-chair Srini Devadas, EECS professor, represented the Academic Degrees working group.

Nobles said that the goal of the Social Implications and Responsibilities working group is to examine ways to integrate scholarship on the social implications and responsibilities of computing into the fabric of the college. She continued by saying that this integration of ethical, social, and policy analyses would require sustained vision and investment.

Nobles identified the stakeholders interested in the integration of ethics into the new college. Employers would be interested to see students that have a more robust language to evaluate societal consequences. Students would be excited about committing to ethics, but possibly concerned about the trade-offs it might introduce.

The Academic Degrees working group is gathering information on finding the right mixture of breadth and depth of curriculum requirements, the effectiveness of interdisciplinary majors, and accessible digital learning.

Devadas spoke about the goals of the group, emphasizing a "broad funnel" approach that focused on teaching computation with an inclusive approach to cater to students from a variety of computer science backgrounds. The group also aims to promote the synthesis of computation with different modes of thought, forming a foundation for new fields of study that will transcend disciplines, departments, and

Daniel Hastings PhD '80, the department head of aeronautics and astronautics, encouraged Devadas to "be bold" in moving forward with introducing computation as a General Institute Requirement, saying that it would be a statement of MIT's priorities.

Social Implications, Page 2

REPORTER'S NOTEBOOK

Lauffenburger reflects on time as head of biological eng. department

Lauffenburger: 'You be the person that you really want to be'

By Vivian Zhong

STAFF REPORTER

Doug Lauffenburger, the Ford Professor of Bioengineering, has led MIT's biological engineering departent since its incention in 1998. The School of Engineering announced in February that Lauffenburger would be stepping down after twenty years as head of Course 20, to be succeeded July 1 by Professor Angela Belcher.

The Tech sat down with Lauffenburger last week to discuss the evolution of the department and the highlights of his tenure as department head.

This interview has been lightly edited for length and clarity.

The Tech: I was wondering if we could start by talking about the early days of the department, what motivated you and others to start this department, and some of the challenges involved.

Doug Lauffenburger: It was the mid 90s when I got here, 1995, and MIT at that point decided it wanted to start a new bioengineering program — likely to turn into a department. And what it wanted to do was something that was special for MIT and different than had ever been done before, and that is to ground bioengineering in modern molecular and cell biology.

So this was the idea of a number of faculty who were at MIT - I was not, I was at University of Illinois — it was Al Grodzinsky, Roger Kamm, Bill Deen, Linda Griffith, and Paul Matsudaira, from all sorts of different departments. I was recruited because I was already half an engineer and half of a cell biologist. At Illinois I had appointments in both departments, so I was really kind of at this interface.

And it was really exciting because it was very grassroots. The faculty

figured out the vision that we wanted; the students were very heavily involved. And so, the faculty came together and proposed to the administration that we create this new biology-based engineering discipline. It was very exciting times b it's really neat when you have faculty and students buy into a vision, and can get administrative support.

And it was also exciting because it was revolutionary. MIT was the perfect place to do it because MIT has often created new engineering disciplines. If you look at the history of electrical engineering or chemical engineering, there's good arguments to be made that they were founded at MIT. We think it's true that biological engineering, our version of it, is being born here, and that other institutions will start picking it up they already are.

Lauffenburger, Page 3

ASSEL ISMOLDAYEVA — THE TECHMakerBreak hosts a candle making station Tuesday in the John-

son Ice Rink.

IN SHORT

Choose to Reuse is holding a reuse event for office supplies on Thursday, April 18 at the Stata Center. Drop-off begins 8 a.m. and items can be picked up from 11 a.m. to 1 p.m.

Elections for UA President & Vice President as well as Class Councils are ongoing until Friday at 5 p.m. Vote online at http://web.mit.edu/ elections/current/

Drop date is Thursday, April 25.

Interested in **joining** *The Tech*? Stop by for dinner Sunday at 6 p.m. or email join@tech.mit.edu.

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

MISGUIDED MEAL PLAN

The wrong solution to the wrong problem. OPINION, p. 4

LATTES WITH MARIJUANA EXTRACT

Serving wellness and bourgeois guilt. ARTS, p. 8

GOOFY SUPERHERO FUN

Milestone for DC Universe. ARTS, p. 9



TALE AS OLD AS TIME

Disney musical delights at CPW. ARTS, p. 9

LIFE OF A UROP

A student's summer research experience CAMPUS LIFE, p. 5

SECTIONS

Opinion 4
Campus Life 5
Arts 8
Fun Pages 10

WEATHER

Bring a raincoat this weekend

By Sarah Weidman
STAFF METEOROLOGIST

The CPW weather machine finally turned off this week as all the prospective students headed home. After a rainy Marathon Monday, more rain is headed to New England as the short week draws to a close. A warm front is expected to cross through the area tonight, bringing a chance of light showers this evening and tonight. This cloudy, drizzly weather will continue until a larger storm rolls in Friday night into Saturday, bringing heavy rain and strong winds. We can hope to

see the sun again on Monday.

This large storm is part of a larger system stretching N-S across the country, often called a squall line. The entire East Coast is expected to experience heavy rain this weekend as the system passes through. In addition to the heavy rains, the National Ocean Service is predicting higher-than-normal tides this weekend due to natural variations in the position of the Moon and Sun relative to the Earth. These two factors increase the chance of severe flooding along the coast this weekend, and we may see damage due to flash floods or coastal flooding in the next few days.

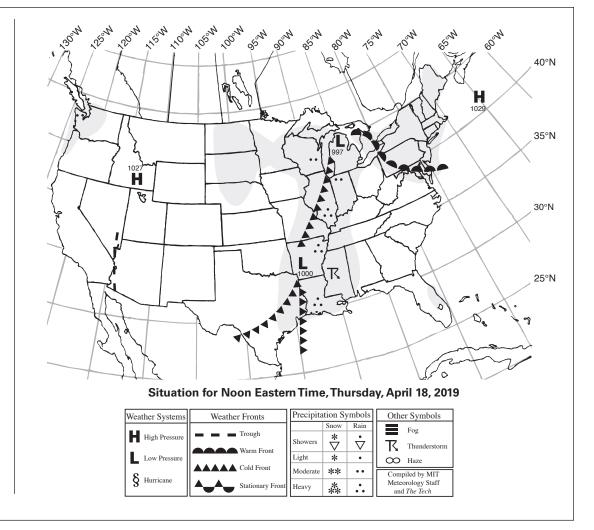
Extended Forecast

Today: Cloudy. High around 49°F (9°C). Southeast winds at 18-14 mph.

Tonight: Low chance of showers. Temperatures rising all night, from around 47 to 56°F (8 to 13°C). South winds at 11-14 mph. Tomorrow: Chance of showers. High around 63°F (17°C) and low around 60°F (16°C). Southwest winds around 15-20 mph.

Saturday: Showers. High around 64°F (18°C) and low around 52°F (11°C).

Sunday: Chance of showers. High around 64°F (18°C).



Organizational Structure, Faculty Appts. groups hold forum

Proposals on how to foster connections between college and other departments and build diversity presented

By Whitney Zhang

The Organizational Structure and Faculty Appointments working groups of the College of Computing presented their goals and progress at a joint forum Wednesday afternoon. The committees explained their progress on designing the structure of and hiring process for the college, respectively. They presented proposals on how to best foster connections between the college and other departments, encourage collective projects, and build diversity.

The Organizational Structure working group was represented by co-chairs Asu Ozdaglar PhD '03, EECS department head, and Nelson Repenning PhD '96, Sloan School of Management associate dean. The Faculty Appointments working group was represented by co-chair Eran Ben-Joseph, DUSP department head, and member Isaac Chuang '90, EECS professor.

First, the Organizational Structure working group shared their design targets: "enable and support world-leading research in education in computer science," "support interdisciplinary research between computing and other academic disciplines," "promote integration of computing into curricula across the Institute," and "incorporate social science as a critical component of computing research," according to Ozdaglar.

Ozdaglar envisioned that the college would "strengthen computing all across MIT" and would "form bidirectional bridges between computing [and] other academic disciplines."

The Organizational Structure working group has examined the structure of existing groups in MIT, such as EECS; Civil and Environmental Engineering; and Institute for Data, Systems, and Society; as well as structures of groups in other schools, such as Carnegie Mel-

lon University and Stanford, said Ozdaglar.

Two of the major questions the working group is tackling, Ozdaglar explained, are what role EE will play in the new college, and how non-College of Computing faculty will connect to the college. Ozdaglar said that EE faculty "want to play a central role in the college but also maintain connections to the school of engineering."

Repenning framed the current structure of EECS as following a "department/labs matrix," which allows research to be conducted quickly, but hiring and teaching to move more slowly. Repenning said that this has worked well in spurring research, but has resulted in lagging hiring. Additionally, the division between EE and CS in the department has not been reflective of its broad spectrum of research.

Repenning said that faculty were looking for "legitimacy that comes

with affiliation" with the college; for example, they hoped that a College of Computing associated grant would be more likely to get funding. He also said that faculty were looking for research support. However, he said that "obvious solutions to these concerns" seemed "countercultural" as departments generally did not "sanction" work in other departments, and it would be difficult to compel CS faculty to collaborate with other departments.

Ben-Joseph said that decisions about the hiring process would be highly dependent on the organizational structure of the college.

Ben-Joseph proposed that faculty appointed in both the college and another department should be called "multidisciplinary faculty" or "multicommunity faculty" instead of "bridge faculty," since the bridge metaphor marginalizes such faculty. Chuang compared these to current "joint" and "dual" faculty appointments.

Chuang proposed hiring in clusters across many departments rather than individuals, in order "to find a set of people who work collectively across boundaries." Departments or a multidisciplinary committee would suggest searches and then faculty would be tenured in the normal departmental process.

Chuang also presented several possible models for hiring. He focused on the hybrid model for faculty appointments, in which a hire would only be made if both the college and a department were in support. Furthermore, the faculty slots would stay within the college and not be counted as part of the overall faculty count of the department.

On faculty diversity, Ozdaglar remarked that the working groups are "trying to increase the number of underrepresented groups represented in the college." One proposal is to have an equity, diversity, and inclusion committee composed of diverse faculty, students, and staff.

Swipes may become usable in Cafe Four

Dining, from Page 1

house," which indicated that students who were on the 125-block meal plan were not eating enough meals, as they thought they might run out of swipes. Dining staff also said that a dining plan that provides a little more than one meal a day was insufficient. The old meal plan provided an average of eight meals per week.

"HDC representatives asserted that making students buy more swipes may not translate into more students eating in the dining halls," stated the meeting minutes. HDC representatives also brought up students' objections to the change and lack of communication about it.

Some concerns raised were decreased dining dollars, higher price per meal than current sticker

prices, and non-availability of food options at lunch for people with dietary restrictions. Dining staff said that dining dollars were decreased to avoid increasing the meal plan price more. Sticker prices have not risen in two years and are expected to rise in the coming year.

According to the meeting minutes, dining staff does not currently plan to amend the 150 meal plan. However, other plans such as allowing meal swipes to be used in Cafe Four, evaluating retail food options, and having a dining hall serving lunch in the New Vassar residence were discussed. Meeting attendees also felt that it was important to have a conversation about menu options, to accommodate students' dietary needs.

Residence hall representatives mainly focused on breakfast swipe utilization, lunch, and community building issues. Next House and Maseeh Hall representatives said that breakfast swipes were not a good target for culture building or students eating adequately. Simmons Hall reported consistent swipe usage at both breakfast and dinner, but, along with other dorms, brought up students' dissatisfaction with having too many swipes left over.

Lunch was highlighted as an issue due to crowding and food quality in Maseeh. New Vassar's dining hall is supposed to resolve crowding issues when it opens.

Building community in the dorms was a reason cited by dining staff to encourage students to eat in dorms. HDC representatives agreed that dinner could contribute to culture, but did not feel that lunch or breakfast had effects on community building.

We're looking for people to help us design infographics to highlight writers' content!

Computation GIR discussed

Social Implications, from Page 1

Devadas responded by saying the "broad funnel" notion is bigger than implementing a GIR, since a GIR only fixes part of the problem in terms of variation in student preparation. Nobles added that while the possibility of a computation GIR has been discussed in the past, no consensus was reached.

Mahi Elango '20 asked how the working groups could guarantee

that the MIT community was a part of the decision-making process in regards to the new college.

Shah responded, "This is not the end of input from the community, but the beginning." With subsequent forums and a comment period after the report is published, the working groups hope to incorporate community opinion into their processes. The public can offer their input to the working groups on the online Idea Bank.



Are you a font fien 5? Do you like making presentations <code>SHINE</code>?

E-mail join@tech.mit.edu

The **Production Department of The Tech** might be just the place for you!

THURSDAY, APRIL 18, 2019 THE TECH 3

Lauffenburger: 'The entire world is now aware of biology-based engineering'

Lauffenburger, from Page 1

TT: Over the course of these 20 years, what do you think your greatest accomplishment as department head has been?

Lauffenburger: I think it's probably threefold. One is establishing this new discipline itself. The entire world is now aware of biologybased engineering. Many other institutions are trying to emulate us and create engineering much more grounded in molecular and cellular life sciences, and in 'omics technology. So it's nice to see a vision have impact on the world and spread.

Secondly the faculty that we've recruited here are really outstanding, both in research and in teaching. And so it's really gratifying that we've built a community of faculty who are very committed to this vision.

And then most importantly, which I saved for last, is the students who have come through the program and just the spectacular things that they are out doing. Creating companies, taking leadership roles within established larger companies, going into academia and becoming faculty and helping develop other departments along these lines. Some are in government policy helping shape how government and the public are viewing this new kind of engineering. In the end, if you're in academia it's all about the students because that's where you have your biggest impact.

TT: And then on a similar note, if you could be remembered for just one thing, what would it be?

Lauffenburger: Well, I've always tried in my life to say, "Whatever I'm going to be a part of, can I make it a better place than it was, because I was there?" And I'd like

to believe that was true here: that MIT is a better place because we've built this department and this community, that bioengineering is a stronger and more impactful field because of what we've created here, that I might have had a favorable influence on faculty and students' lives and careers. So just the feeling that this part of the world that I've lived in for 20 years — if I've made it a better place, then that's what I'm most proud of.

TT: On the flip side, how do you think the department has shaped you as a person and as a principal investigator?

Lauffenburger: So one thing that's just true of all of us faculty here at MIT is MIT makes us better researchers, for one, because the students are so creative and ambitious. We get pushed to think of more and more interesting things alongside them. And colleagues are so good in their various respective fields that our research just gets stronger with more faculty and collaborations. We actually become better teachers too, because the students again are inquisitive and smart and hardworking and we've got to be at our best to keep moving forward in the classroom too. And I think I've also learned a lot in trying to help lead the creation of this new kind of engineering. We've built in a lot of elements from previously established disciplines, and trying to figure out all the right elements has been intellectually challenging.

TT: If you could tell one thing to all of the BE department students, to hold onto as they go through life, what would it be?

Lauffenburger: I would say, "You be the person that you really want to be." And by that I mean —

more than the professional, scientific, or technical sense - how are you treating people? How are you interacting with people? Be the person you want to be and don't let that get subsumed or damaged by ambition to succeed or accomplish. You see too many people that get so focused on success and accomplishment in whatever form, that they distort themselves as people, and they don't treat the people around them well, and they lose edges of integrity or kindness. So I would say don't lose track of the kind of person you want to be.

TT: What are you looking forward to for the future of bioengineering?

Lauffenburger: I'm excited about what's going to happen because I think the world is just now catching on, from the 20 years of students going out and accomplishing things in industry, in academia, in government. The world is starting to catch on about how powerful this education is - your skill sets and your ideas. So I think it's only going to expand and I think that there's another force driving that, and that is the power of biology as a science and biological technologies. The world has problems that are only going to be addressed effectively by those, and so the world is going to increasingly need people with biological engineering education. Whether the number of students in the major will increase dramatically, I don't know. We could look up 30 years from now and it might be one of the largest departments on campus. It wouldn't be impossible given the role of biotechnology in the world. But that's not really the criteria. It's really more for impact. And I'm certain we're going to have



KEVIN LY-THE TECH

Doug Lauffenburger, the Ford Professor of Bioengineering, is stepping down after 20 years as head of Course 20.

impact — medicine, health care; more broadly, agriculture, nutrition, environment, energy. That's what's going to be fun to watch.

TT: And what does the future hold for you? What's the next big project you're going to tackle now that you've stepped down?

Lauffenburger: You know, I don't know. A couple of things: I'm not retiring, and I'm not leaving MIT, and in fact I'm not even going on a sabbatical leave for the foreseeable future because I don't know what I would do on sabbatical and I don't want to waste it. Right now I'm looking forward to teaching more, because it's hard as a department head to teach as much as you'd like. So I've been helping Eric Alm boot up a new class in computational biology -

Complex Biological Data Analysis, and I'm excited about that. Linda Griffith and I are really going to try to build up this developmental biology, cell, and tissue engineering class that she started. And I'll have more time to pay closer attention to my research lab. We'll see if the students find that beneficial or not, but I will have more time to look closely into the things that they're working on.

TT: Anything else you want to

Lauffenburger: My appreciation for the faculty, students, and colleagues. It's been a big partnership, a community, a team.

Editor's Note: The reporter is a senior in the Biological Engineering department. The full interview can be found online at thetech.com.

DID YOUR MIT ESSAYS GET YOU IN?

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

Email your pieces to cl@the-tech.mit.edu!

Solution to Cherry

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

Solution to Blossom

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

Solution to Rectangular-

					fr	om	pa	ige	10	1				
Α	В	U	T		P	Α	P	Α	S		S	Р	Α	S
L	Α	S	Н		Ε	R	Ε	С	T		Н	Α	L	Т
Α	R	Ε	Α		Ε	R	N	I	E		Α	R	I	Α
	В	R	I	С	K	Α	N	D	M	0	R	Т	Α	R
				D	Α	Υ				Р	0	S	S	Ε
Ε	F	F	Е	С	T		L	Α	T	T	N			
В	L	0	G			J	Α	Р	Α	N		T	0	Е
В	0	X	0	F	F	T	C	E	R	E	C	0	R	D
S	Р	Υ		L	Τ	V	E	S			T	S	Е	Е
			R	Α	G	Ε	S		S	Е	Α	S	0	N
Α	С	R	Ε	S				S	Е	Α				
В	L	0	С	K	L	Ε	T	T	Е	R	I	N	G	
Н	Y	D	Ε		Α	X	I	0	M		L	0	Α	N
0	D	T	N		S	I	D	L	Е		L	0	٧	Е
R	Е	Ν	T		S	T	E	E	D		S	K	Е	W

Solution to Festival

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

Like Alexander Hamilton?

See him in your wallet every week!

Join the Business Department of The Tech and earn \$12/hr!

Email join@tech.mit.edu



Publisher

Áron Ricardo Perez-Lopez '20

Editor in Chief Jessica Shi '21

Business Manager Thomas Wang '21

Managing Editor Ivana Alardín '21

Executive Editor Nathan Liang '21

NEWS STAFF

News Editors: Whitney Zhang '21, Soomin Chun '22; Associate News Editors: Kaitlyn Hennacy '20, Zoe Anderson '21, Rujul Gandhi '22; Staff: Anshula Gandhi '19, Vivian Zhong '19, Billy Woltz '20, Sheila Baber '21, Sharon Chao '21, Jocasta Manasseh-Lewis '21, Zoe Sheill '22; Meteorologists: Jordan Benjamin '19, Sarah Weidman '21.

PRODUCTION STAFF

Editors: Eber Nolasco-Martinez '20, Joanna Lin '22; Staff: Jenny Chan '21, Kevin Pho '22, Ana P. Reyes Sánchez '22, Nicole Teichner '22; Illustrator: Max Evans '18.

OPINION STAFF

Editor: Fiona Chen '21; Associate Editor: Steven Truong '20; Staff: Michael Beautyman G, Mark Goldman G, Claire Lazar G, Keertan Kini '16, Isaac Silberberg '16, Octavio Vega '22.

SCIENCE STAFF

Editor: Jordan Harrod G; **Staff:** Quinn Brodsky '22, Jocelyn Shen '22, Joanne Yuan '22.

SPORTS STAFF

Staff: Keshav Gupta '21.

ARTS STAFF

Editors: Ivy Li '20, Torri Yearwood '21; Associate Editors: Ethan Vo '19, Johnson Huynh '21, Alana Chandler '22; Staff: Alexandra Sourakov '18, Rogers Epstein '19, Lila Jansen '19, Mariam Dogar '20, Jessica Tang '20, Rona Wang '20, Erica Weng '20, Max Langenkamp '21, Lani Lee '21, Nyssa Miller '21, Leah Yost '21.

PHOTOGRAPHY STAFF

Editors: Ethan Sit '21, Assel Ismoldayeva '22, Kevin Ly '22; **Associate Editor:** Alexander Sandberg G; **Staff:** Mahi Shafiullah '19, Leon Yim '20, Katya Bezugla '22, Shinjini Ghosh '22, Alex Li '22.

CAMPUS LIFE STAFF

Staff: Tafsia Shikdar '21.

COPY STAFF

Copy Chief: Adira Balzac '21; Associate Copy Chiefs: Jonas Kantola '21, Ayomikun Ayodeji '22; Staff: Yaseen Alkhafaji '21, Maisha M. Prome '21, Kendall Yu '21, Jack Dinsmore '22, Pranit Nanda '22, Clinton Reid '22, Cindy Zhang '22, Sophia '7hi '22

BUSINESS STAFF

Advertising Manager: Sophia Chan '22; Staff: Efstratios Moskofidis G, Marissa Steinmetz '19, Mindy Wu '19, Justen M. Holl '21, Alvin Zhu '21, Pranit Nanda '22, Steven Ngo '22, Maya Reyes '22, Daniel Zhang '22.

TECHNOLOGY STAFF

Staff: Jiahao Li '18, Gaurav Chandra '20, Tareq El Dandachi '22.

ADVISORY BOARD

Paul E. Schindler, Jr. '74, V. Michael Bove '83, Barry S. Surman '84, Deborah A. Levinson '91, Karen Kaplan '93, Saul Blumenthal '98, Frank Dabek '00. Satwiksai Seshasai '01. Daniel Ryan Bersak '02, Eric I, Cholankeril '02, Nathan Collins SM '03, Tiffany Dohzen '06, Beckett W. Sterner '06, Marissa Vogt '06, Andrew T. Lukmann '07, Zachary Ozer '07, Austin Chu '08. Michael McGraw-Herdeg '08, Marie Y. Thibault '08. Ricardo Ramirez '09. Nick Semenkovich '09, Angeline Wang '09, Quentin Smith '10. Jeff Guo '11. Joseph Maurer '12. Ethan A. Solomon '12, Connor Kirschbaum '13, Jessica J. Pourian '13, Aislyn Schalck '13, Anne Cai '14, Jessica L. Wass '14, Bruno Faviero '15, Kali Xu '15, Leon Lin '16, Kath Xu '16, Anthony Yu '16, Colleen Madlinger '17, Lenny Martinez Dominguez '17, Charlie J. Moore '17, William Navarre '17, Katherine Nazemi '17, B. D. Colen.

EDITORS AT LARGE

Senior Editors: Emma Bingham '19, Nafisa Syed '19, Christopher Wang '19, Josephine Yu '20.

PRODUCTION STAFF FOR THIS ISSUE

Editors: Eber Nolasco-Martinez '20, Joanna Lin '22; **Staff:** Kevin Pho '22, Ana P. Reyes Sánchez '22, Nicole Teichner '22; **Copy Editors:** Josephine Yu '20, Adira Balzac '21.

The Tech (ISSN 0148-9607) is published on Thursdays during the academic year (except during MT vacations) 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. 02139-7029. TELEPHONE: Editorial: (617) 253-1541. Business: (617) 258-8224. Facsimile: (617) 258-8226. Advertising, subscription, and typesetting rates available. Entire contents © 2019 The Tech. Printed by Graphic Developments, Inc.

EDITORIAL

The new minimum meal plan is misguided

Reducing affordability and flexibility can only harm, not help students

MIT has recently announced a new minimum meal plan for the 2019–20 academic year: 150 meals and 100 dining dollars at a cost of \$2,225.50 per semester. For the 2018-19 academic year, the minimum plan consisted of 125 meals and 290 dining dollars at a cost of \$1,950 per semester.

The new plan is the wrong solution to the wrong problem. The changes reflect a misdiagnosis of the issues that affect food affordability and accessibility on campus. Rather than assessing students' eating habits directly, DSL administrators are using meal swipes as a proxy for meal consumption on campus. Their response does not take into account the variability of whether, when, and how students eat. Instead, students are being forced to accept a more expensive and less flexible plan.

The new plan is the wrong solution to the wrong problem.

Administrators have argued that under the current minimum meal plan, students are not eating a balanced number of meals each week because they are worried that they will run out of meal swipes before the semester ends. They have further cited data that meal swipe usage across dining halls in Fall 2018 fell 11 percent compared to Fall 2017.

According to an FAQ document justifying the changes, "Replacing the 125-meal plan with a 150-meal plan will ensure students have no fewer than 10 meals per week."

But at the risk of stating the obvious, the number of swipes students use is an accurate measurement of one thing only: how many meals they eat in dining halls. Meal swipe usage is correlated to, not indicative of, total meal consumption.

In fact, the new meal plan does not provide students with substantially more meals. If we assume that students spend around \$8 on average on meals from campus food operations, the old minimum plan's 290 dining dollars equates to approximately 36 meals. Adding that to the 125 meal swipes, the plan allows for about 161 total meals. By contrast, the new minimum plan contains about 150 + 13 = 163 meals. (Compare this to a \$275.50 price increase.)

Dining dollars also add flexibility, an important factor in ensuring that students are actually able to access two or three meals per day.

Of course, different student schedules are best accommodated by different meal plan structures. For some students, it is plausible that dining dollars do not enable them eat more meals, and so they may need more swipes per semester. But in this case, the goal should be to increase the affordability — and thus desirability — of the plans with more swipes, as well as the quality of food in dining halls, rather than making all students bear higher costs.

Given that students do not seem to benefit from a new plan that increases meal swipes rather than meals, it is difficult not to wonder whether the plan is instead more lucrative for Bon Appetit.

Another justification administrators have offered is that the meal plan changes will encourage students to eat more meals in their dorms and consequently "refocus back on the house experience," as *The Tech* has previously reported.

This claim feels somewhat callous in light of recent conversations surrounding housing on campus. Students have loudly and clearly articulated their concerns about administration-driven changes — such as the Senior House shutdown, the

shift away from implementing a kitchenbased cook-for-yourself community in New Vassar, and the attempts to end mutual selection — arguing that these decisions have been detrimental to the uniqueness of MIT dorm culture and students' ability to foster close living communities.

Administrators can do more to ensure their perceptions truly align with student experiences.

We can certainly debate specific actions in more detail, but the fact of the matter is that MIT *students* are the people on campus who best understand what is necessary for their communities to thrive. Administrators have too often disregarded these voices in favor of their own visions for what dorm culture should look like.

We ask that administrators refrain from using their ideas of community-building as an excuse for decreasing the affordability and flexibility of campus dining, and instead to be respectful of students' autonomy and ability to shape their communities.

We recognize that administrators strive to make decisions in students' best interests, but they can do more to ensure their perceptions truly align with student experiences.

Editorials are the official opinion of The Tech. They are written by the Editorial Board, which consists of Publisher Áron Ricardo Perez-Lopez, Editor in Chief Jessica Shi, Managing Editor Ivana Alardín, Executive Editor Nathan Liang, and Opinion Editor Fiona Chen. Senior Editor Nafisa Syed also contributed to this editorial.

Teaching Ethics by Mark Goldman

How history could be taught

W.B. Rogers profited from slavery before founding MIT...

On Wednesday, come ready to compare this with current power dynamics & their influence on MIT's mission

defense MIT/slavery?
funding class
1940 2017 2019

How MIT presents its history

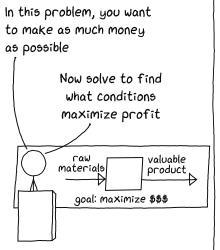
We come here to publicly
acknowledge MIT's role in slavery...

Almost 0.1% of
our students
studied this topic
in a NEW course!

To conclude,
this event shows
we are just as
good as Brown,
Harvard, ...

MIT News
livestream

What most students are taught



font from xkcd

OPINION POLICY

Editorials are the official opinion of *The Tech*. They are written by the Editorial Board, which consists of Publisher Áron Ricardo Perez-Lopez, Editor in Chief Jessica Shi, Managing Editor Ivana Alardin, Executive Editor Nathan Liang, and Opinion Editor Fiona Chen.

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 <code>letters@tech.mit.edu</code>. Hard copy submissions should be addressed to <code>The Tech</code>, P.O. Box 397029, Cambridge, Mass. 02139-7029, or sent by interdepartmental mail to Room W20-483. All submissions are due by 4:30 p.m. two days before the date of publication.

Letters, columns, and cartoons must bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. *The Tech* reserves the right to edit or condense letters; shorter letters will be given higher priority.

Once submitted, all letters become property of *The Tech*, and will not be returned. Letters, columns, and cartoons may also be posted on *The Tech*'s Web site and/or printed or published in any other format or medium now known or later that becomes known. *The Tech* makes no commitment to publish all the letters received.

 ${\bf Guest\ columns}$ are opinion articles submitted by members of the MIT or local community.

TO REACH US

The Tech's telephone number is (617) 253-1541. Email is the easiest way to reach any member of our staff. If you are unsure whom to contact, send mail to <code>general@tech.mit.edu</code>, and it will be directed to the appropriate person. You can reach the editor in chief by emailing <code>eic@tech.mit.edu</code>. Please send press releases, requests for coverage, and information about errors that call for correction to <code>news@tech.mit.edu</code>. Letters to the editor should be sent to <code>letters@tech.mit.edu</code>. The Tech can be found on the World Wide Web at <code>http://thetech.com</code>

Participate in a UROP

Research experience, featuring an abandoned linear accelerator

By Josephine Yu EDITOR

The lights were dim, and the cranes cast weird shadows on the gritty concrete floor. Each step I took echoed a little. We moved slowly, past doors with bolded warning signs and metal double-doors. Behind us, the lights shut off one by one. When we left the "warehouse," our feet hit creaky wooden boards, and I took my first breath of fresh air in hours. Leaves rustled to the left, and crickets chirped in the distance. We were

It all began about 12 hours ago. I had just sat down at my desk and tried to ssh into the lab's login computer as I did every morning. While I waited for the login to go through, I pulled up my to-do list for the day. My supervisor was incredibly organized, and he guided my tasks through a shared document where he listed out what simulations I should run and what specifications they should have. Despite all that hand-holding, I didn't feel underqualified or out of place. When I clicked back to the terminal, it took me a moment to realize that the login had

The Course 3 lab I worked in during my freshman summer at MIT ran molecular dynamics simulations, so they had a large

wasn't perfect, so it was no surprise if a few of the simulation nodes went down during the day, but I had never seen the login node (which lets users access all of the nodes) go

It was moving day for the machines. Almost every day over that summer, my supervisor spent a few hours tending to the group's computers, preparing to upgrade the cluster and get them a nicer home. I remember asking why he spent so much time on this; the old cluster was usable, after all. He responded that the group needed the resources, and despite having no interest in continuing with biological simulations (he now works at Amazon), he'd see it through.

And finally, the computers were getting transported from a dingy little room in the basement of the Infinite to the Bates Research and Engineering Center, a facility which once housed a linear accelerator that is now used for some miscellaneous MIT research tasks, including cluster-hosting.

My supervisor roped two other undergrads and me into helping with the move. A bumpy car ride later, we had gone from the friendly offices of 400 Technology Square to an obnoxiously loud, immaculately white room that looked like it was straight out of a sci-fi movie. There were slanted rows

cluster of computers for this purpose. It of giant black lockers, each with a knot of wires emerging from the top. We shoved in squishy yellow earplugs that barely blocked out the buzzing. It was like standing in a room with thousands of refrigerators, all humming away.

The other two undergrads and I were tasked with securing sliding rails in the designated lockers, sliding the computers into the appropriate shelves, and wiring them up. It took a few tries before I totally got the rhythm of it, including where to place my head relative to the fan so that my hair wouldn't get sucked in. I'm not sure how many computers I placed and wired that day, but I know it was enough to last me a

I marvelled at how my supervisor never seemed to tire and instead bulldozed through and even set up the software for managing all of the computers. At the time, I thought perhaps this was his duty as a graduate student, but when I think about it now, this project must have been a product of his own drive.

When we finally packed up to go back to MIT, it was already nearing 10 p.m. We padded slowly down the the concrete steps and into a warehouse-like area. Stepping out of the facility, I had a moment of realization: I had just spent hours laboring over something that I'd never use or benefit from, and this was merely a fraction of the months that my supervisor dedicated. To me, it was a fun field trip, but I wonder what meaning it held for him. Did he gain anything from it, or was it just a step in the journey? As we piled into the car, we laughed.

I attended my supervisor's PhD defense last fall, and though I didn't understand the bulk of it, I could pick out some familiar phrases and key terms. Most of the work I did didn't make it into his thesis and was never published either, but the impact of that summer stays with me.

I'm a junior now, and thinking about grad school applications sometimes brings this memory back. My supervisor probably didn't have to reassemble an entire computer cluster to complete his thesis, nor did such a task relate to his research, but he did it anyways. In five years, could I have the maturity to give my all to a project like that? Perhaps I won't know unless something like that hits me, so until then, I'll continue along my trajectory, per Newton's First Law.

This article is part of the "101 Things To Do Before You Graduate" column, a series inspired by that titular list which is given to incoming freshmen. If you are interested in contributing to this column, please email cl@the-tech.mit.edu.

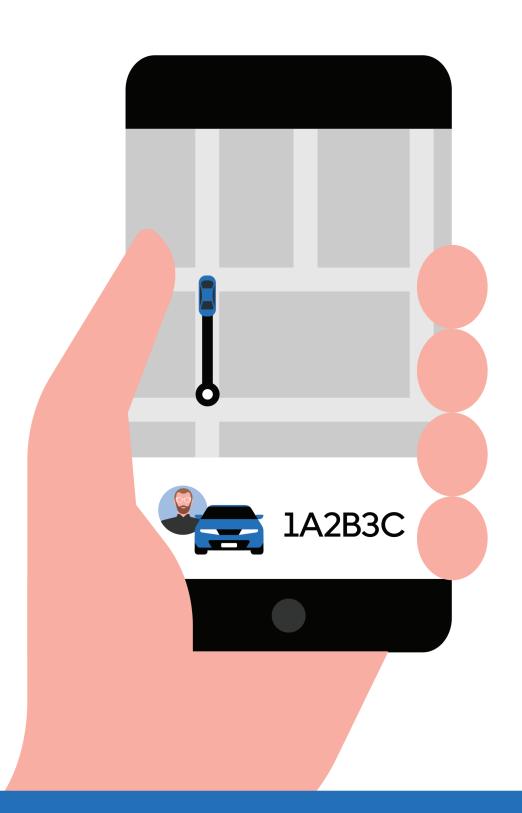


6 THE TECH
THURSDAY, APRIL 18, 2019

Ride Safer

Check Your Ride

- 1. License plate
- 2. Car make & model
- 3. Driver photo
- 4. Have driver confirm your name



Uber

Thursday, April 18, 2019

The Tech 7



RESTAURANT REVIEW

A cafe with coffee, cookies, and... CBD lattes?

NOCA Provisions combines trend with taste

NOCA Provisions

Cafe, \$\$

156 Rindge Ave, Cambridge MA 02140

Monday-Friday 7 a.m.-3 p.m.

8 a.m. opening on weekends

By Alana Chandler
STAFF WRITER

Nestled in a cozy corner of Porter Square's residential neighborhood, NOCA Provisions couldn't be a more fitting environment for a slow afternoon paired with a steaming cup of coffee. Honeyed sunlight flows through the wide cafe windows onto the wood-paneled tables, kindling the type of calm that every cafe strives for.

Among freshly made oat parfaits, an assortment of baked goods, and a daily menu selection, what stands out are their unique lattes. While other cafes might tout organic and local ingredients, NOCA Provisions also offers a special ingredient to their drinks — CBD, short for cannabidiol.

NOCA Provision's wellness menu has two seasonal drinks containing this compound, one turmeric and another lavender flavored. I tried the former, a vegan turmeric latte made with coconut milk, agave nectar, masala spices, and five milligrams of olive oil-based CBD. Subtly sweet, earthy, and light, the drink pairs perfectly with CBD's mildly grassy flavor, balanced with cinnamon and a slight kick from cayenne. It makes sense that a specialty ingredient like CBD could raise the price of a drink, but without adding any particularly outstanding flavor or rumored "magical" benefits in the immediate moment, it is unlikely I would drop another \$10 for this drink again, despite it being an overall enjoyable experience.

From dog treats to body lotions to chocolate truffles, products infused with CBD are praised as a cure-all miracle elixir. While CBD is derived from the marijuana plant, it is marketed as a non-psychoactive

corrective to the ills of intoxication. It will not cause the user to get "high," unlike its famous cousin THC (tetrahydrocannabinol), also found in marijuana. With the sudden popularity of CBD exploding in the past year, it has transformed from a compound used at the margins of society to the cultural center, some referring to it as the new avocado toast. However, to simply refer to it as a millennial obsession would be false. CBD is now considered a remedy to anxiety and pain according to a small, but growing body of research. According to Dr. Esther Blessing, an assistant medical professor at New York University, "CBD is the most promising [remedy] for neuropsychiatric diseases in the last 50 years." However, many professionals and politicians still question the thin line between hype and science as to the true benefits of CBD, as much of its research is in its infancy. From a substance criminalized decades ago to one legalized and revered by society now, CBD is confusing, to say the least. The move towards the legalization of hemp products seems to be less about removing the stigma of cannabis than about its economic benefits.

Sipping the latte, I had a sense of guilt. In the picturesque serenity of the cafe, sip

after sip of soothing spiced drink calmed my sore winter throat, yet it felt like a flimsy bandaid on a wound within. I couldn't help but think of the thousands still jailed for minor marijuana-related infractions, specifically those marginalized — people of color and those from disadvantaged socioeconomic communities — while wellness influencers now proudly amplify CBD's benefits through aesthetic Instagram photos. Was I simply another one of these privileged people, drinking an expensive latte to write about it?



CBD oil is dropped into a latte.

DANCE REVIEW

Dancing with the blood

Batsheva Dance Company takes audiences beyond familiar limits

By Alexandra Sourakov

STAFF WRITER

The Batsheva Dance Company takes you by surprise from the start. Many of the audience members were still mid-chatter when the performance began, house lights still on — an understated, unannounced birth, a simple challenge to theatrical conventions. Another shock to the familiar is the structure of *Venezuela*: two 40-minute sections with the same choreography but different music and casting. Juxtaposition of the familiar with the unfamiliar and the heightening of sensation and imagination were themes that ran through the show.

The choreographer, Ohad Naharin, developed the Gaga movement language

that is practiced by the Batsheva dancers (among others). Performers are encouraged to explore their individuality and truly feel the movement rather than trying to achieve a certain aesthetic. They do not practice or rehearse in front of mirrors. Emphasis is on embodying imagery and the result is unlike any other dance form I've seen. The dancers' bodies seem to take on textures, some soft and fluid, others rough and sticky. The viscerality of their movements is tempered and enhanced by impeccable control.

The set and the all-black costumes are minimalistic. The dancers crisscross the stage, their graceful jumps increasing in pitch and intensity. They float through space in perfect synchrony, seamlessly

changing direction and formation. Their bodies begin to resemble particles in harmonic motion, ocean waves lapping on the shore, a herd of gazelle growing in size as it emerges from the savannah grass. The simple and familiar motion of skipping is deconstructed and must be considered anew.

In the next sequence, women sit astride men who crawl slowly on all fours, like pack animals resignedly carrying their load. The themes that surface are dependence/independence, domination/subordination, power/gender dynamics. Later, dancers group center-stage and solos evolve from their clump and melt right back into it — a regiment, an ant's nest, a liquid minimizing surface energy.

Watching the same movements performed to different music was unexpectedly most intriguing. The Gregorian chants and slow instrumental pieces of the first pass created an ethereal effect of being lost in time and space. In the second pass, the bass-heavy, aggressive music was imbued with anger and violence. Songs include "Bullet in the Head" by Rage Against the Machine, "Dead Wrong" by Notorious B.I.G., and Arabic trap music ("Mirage" by Biz). Both sections featured two of the dancers rapping the graphic, expletiveladen lyrics of "Dead Wrong" into a microphone, with other members of the cast occasionally joining in. The choreography takes on a different meaning and timbre when woven into such a different fabric.

The climax of *Venezuela* was the flag sequence, in which dancers sidled onto the stage in a line holding a stack of flags, dropping one at a time as they went. The discarded flags were picked up by flagless dancers. The piece culminated in the dancers windmilling their arms as if beat-

★★★☆

Venezuela

Batsheva Dance
Company

Choreography by Ohad
Naharin

Celebrity Series of
Boston

April 5–6

ing one of the flag bearers who crawled amongst them. In the end, he lay still, covered in a white sheet comprised of many flags. In the first section, all the flags are white; in the second, they are multinational flags (though with alternate colors). At the end, the title of this composition begins to make sense.

No printed words can do justice to the hypnotic experience created by Batsheva. Rather than anonymizing the individual in the troupe, each dancer bursts like a ray of sun through a quartz prism. Naharin created Gaga as a language for dancers and nondancers alike. There is a certain democratic sentiment in this, far removed from the hallowed halls of classical ballet, and also a feeling of a primordial beginning, as if this is what dancing was before people wrote the guidelines. Dancing for the joy of feeling your muscles clench and stretch; dancing to express what you see in the world around you; dancing because you exist.



ROBERT TORRES

Batsheva Dance Company was presented by the Celebrity Series of Boston at the Boch Center Shubert Theatre.

Have something to say? Write **opinion** for *The Tech*!

opinion@tech.mit.edu



THURSDAY, APRIL 18, 2019 THE TECH 9

MOVIE REVIEW

A full family affair

Shazam! brings back the joy of watching zero-stress superhero movies



Shazam (Zachary Levi) hides behind Freddy Freeman (Jack Dylan Grazer) in the Warner Bros. Pictures film Shazam!.

By Mahi Shafiullah STAFF WRITER

The first superhero movie I remember watching was the *Spiderman* trilogy by Sam Raimi, starring Tobey Maguire as the eponymous character. The then-six-year-old me still remembers the goofy dances, the melodramatic romances, and the thrill of watching Spiderman fight off Green Goblin over a New York street fair. It seemed like the most that were at risk for Spiderman was Mary Jane's hand and perhaps an unsuspecting bystander's life as a buttress nearly fell on

Since then, the genre of superhero movies has been overhauled. Since Iron Man, Marvel Cinematic Universe has birthed many blockbusters, and DC Movies has not fallen that far behind. But with the rise in popularity, the stakes in those movies also went up. Nowadays, anything short of a genocidal maniac or a couple threatened planets are the territory of small-time bad guys. Add to that a complex web of movies, and you may sometimes almost wish for a simpler story as was told by Sam Raimi back

That's exactly the gap Shazam! is here to fill. The protagonist, Billy Batson (Asher Angel), is a 14-year-old, and so is his sidekick Freddy Freeman (Jack Dylan Grazer). When Billy Batson gains his superpowers, he becomes the superhero Shazam, but he suddenly gains an adult body (played by Zachary Levi). Despite his new adult form. to Billy and Freddy, good and evil is still a

black-and-white picture. The lack of mental burden from the moral questions continuously posed by superhero movies today is a refreshing change, something that couldn't have come any sooner. Shazam! is an origin story unladen by any additional philosophical undertones or a credo that is so important today to run a continuous movie franchise. If for nothing else, I welcome Shazam! into the club of significant milestones for DC movies. David Sandberg showed how to make a fun movie within the superhero genre without littering the information space with more questions borrowed from armchair philosophers to add an extra twist or intrigue.

The Shazam! team also deserves major applause in the casting: the mixed-racial gang of foster kids making up Billy's family would give almost everyone a character to identify with. Without any major spoilers, I can confidently say that the big part they play in developing the storyline proves their role to be bigger than the typical "token minority" casting that Hollywood is so infamous for. Asher Angel and Zachary Levi as the Billy Batson and Shazam duo also pull off their respective characters quite well. Both Billy's fears and hopes are well portrayed by Levi in Shazam's character.

There were a few unfortunate missteps made by Shazam!, including the casting of Mark Strong (Lord Blackwood in Sherlock Holmes: The Game of Shadows or Merlin in the Kingsmen franchise) as the antagonist. I don't believe DC could have found a more run-of-the-mill antagonist even if they tried, and his bland performance weighs down what could have been an otherwise amazing movie. Like its predecessor Venom, Shazam! also relies too much on CGI to unconvincingly portray the important characters. The soundtrack isn't memorable, either. Even in DC movies which failed to be cinematic masterpieces (I'm looking at you, Batman Vs. Superman), the score birthed spellbinding leitmotifs; think Is She With you? by Hans Zimmer. But in recent times, both Aquaman and Shazam! give me the impression that this is one area where DC Movies is just not trying hard enough.

I know that as soon as Avengers: Endgame comes out in a month, everyone will forget all about Shazam!. But, before that happens. I recommend you take your friends or your family and step into a movie theater to enjoy the unblemished joy that is Shazam!. Perhaps, once again you will remember what it felt like to watch superhero movies without feeling the pressing need to remember the details of fourteen more, or experiencing the all-consuming dread of being in the center of a half-dead or dying universe.

★★★☆

Shazam!

Directed by David Sandberg

Screenplay by Henry Gayden

Starring Zachary Levi, Mark Strong, Asher Angel Rated PG-13, Now Playing

MUSICAL REVIEW

Be our guest, be our guest, be our guest!

Next Act presents a tale as old as time for their 2019 CPW musical

**** Beauty and the Beast **Directed by Katie** Henshaw '20 **Performed by Next Act Next House TFL** April 11-13 at 8 p.m.

By Rona Wang and Erica Weng

Scene licks of gold light, a swell of orchestral music, and the handsome prince (Long Nguyen '19) becomes a hideous Beast. So begins a sparkling, delightful performance of the classic fairytale-turned-Broadway-musical, Beauty and the Beast, by the cast and crew of Next Act. Belle (Jenny Zhang '21) slides in on the first notes of her eponymous song, proclaiming her desire to see someplace bigger and brighter than the small French village that she grew up in. Soon enough, her wish is granted in the worst way, when she becomes entangled within the Beast's claws after he imprisons her father Maurice (John Adeyeye '20). And the rest? A tender story about how Belle finds her home even in such a cold, unfamiliar place as the Beast's castle — a bit like how we've all found our home here at MIT, as director Katie Henshaw points out. Happily ever after in our home, sweet home; it's a tale as old as time.

The musical ran throughout CPW within the confines of a rather small makeshift stage built in the middle of Next House TFL, delighting audiences of prefrosh and MIT students alike. Each scene brimmed with uproarious laughter, if not the melodious voices of Zhang, Nguyen, Deuce Foutch '19, and more. Of key note include the ensemble

of living, breathing furniture dancing merrily to the classic melody of "Be Our Guest," Zhang singing about the new perspective the Beast had given her in "A Change in Me," and Nguyen's emotional outpouring of desire to learn how to love in "If I Can't Love Her." The talent of cast and crew was apparent in the performance, but given a tight rehearsal schedule and a limited pool of resources to work with, it's understandable that the team would trade some performance quality for audience entertainment. Opening night betrayed hints of nervousness, as was apparent in the fight scene between the Beast and Gaston (Deuce Foutch) choreographed by Joey Noszek '20 though the scene was planned carefully, the actors made a few missteps and false movements. But all in all, the crew sewed together scenes of romantic tenderness, comic hilarity, and emotional poignance into a wholly entertaining show

It's obvious that the actors and actresses had a blast pouring their emotions into the iconic roles. Rishabh Chandra '19 played Le Fou, Gaston's adulating sidekick. "Le Fou is a dunce, an utter moron who needs an alpha to cling onto. This is not a personality I have any affiliation with, and it's the comedy of his sheer weakness as a human being that makes him fun to play." Justina Yang '19 said she loved "being exaggeratedly 'wound-up" for her role as Cogsworth, the head butler transformed into a rather high-strung talking clock. "I've had an amazing time acting, singing, dancing, and bringing this story to life with everyone else!"

Rishabh has been part of six previous musicals in his life, but this one was his first one at MIT, as both a cast member and vocal director at that. He was originally only vocal director, but he stepped in to cover Le Fou's role when the original student playing the character fell sick — merely two weeks before performances. Having performed in Beauty and the Beast in an ensemble production in middle school, Rishabh explained, "I always wanted to play Le Fou... while I didn't have much time in the 'process of perfecting the role,' it was always something I had wanted to play." Rishab's favorite scene he played

in the musical is one when Belle rebukes Gaston, "[The Beast] is not the monster, Gaston; you are!" and Le Fou collapses on the stage, hurt, as if he himself were the target of Belle's insult rather than Gaston.

Musicals demand hours and hours of attentive practice perfecting the tiniest detail. Rishabh explains, regarding his role as vocal director, "The audience does not realize the amount of effort it takes to sing all harmonies accurately and in time with the pit. The first time we ran the orchestra and the cast together, it was... bad. And there is a major skill in just being able to listen and coordinate correctly, especially in a dorm setting where the acoustics are less than ideal, and we don't have mics." Helen Read '20, oboist in the pit orchestra, explained that syncing up orchestra and cast was especially difficult: "We don't have a monitor, and the actors can't see Zach, the musical director... during [the] final dress [rehearsal], we added a woodblock beat into 'The Mob Song' to try to help the actors hear the beat."

But with mounds of challenges and hard work comes mounds of fun for the cast and crew — after all, when you spend hours upon hours each week rehearsing together, you can't help but have some fun. One of Rishabh's favorite parts of rehearsal was making song parodies — once, they mashed up the title song, "Beauty and the Beast," with "Don't Stop Believing."

All in all, Next Act pulled off a splendid rendition of Beauty and the Beast for this year's CPW showings.



SOPHIA FANG

The Beast (Long Nguyen '19) sings "If I Can't Love Her" in Next Act's Beauty and the

FUNFUNFUNFUNFUNFUNFUNFUNFUNFUN FUNFUNFUNFUNFUNFUNFUN

Cherry

Solution, page 3

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

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.

Blossom

Solution, page 3

24×	-	200×	-:	-:	6÷
24^	:	2007	:	:	lo-
l .	1		- 1		
.	<u> </u>				
	2-		į	6	
l .	1				
	1				
l .	1		;		
60×	-	2-	60×	-	-
loox	1	2-	100^		1
	1				
	1			i	i
.					- :
	5		36×	i	i
	1				
	1		1		i
	1		1	1	1
	360×	-	┥	8×	-:
	13002	1		J°^	:
	1	1			
	1	i			į
	_	;			
1		i	6×		
	1	-	1		
	1		1		
		i	1	į	
		-	1	-	

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

Rectangularity by Fred Piscop

Solution, page 3

ACROSS

- 1 Share a border with
- 5 Dads
- 10 Relaxing resorts
- 14 Mascara target 15 Standing straight
- 16 Sentry's command
- 17 Neck of the woods
- 18 Bert's Sesame Street pal
- 19 Diva's solo 20 Retailer with a physical
- building
- 23 Calendar rectangle
- 24 Old West pursuit group 25 Consequence
- 29 Nero's language 32 Online diary
- 33 Kyoto's country
- 34 Tip of a boot

- 37 "Highest film gross," e.g. 41 Do undercover work
- 42 What bios chronicle
- 43 "Now it's clear"
- 44 Blows one's top
- 45 One year of baseball

- 47 Land measures
- 50 Mermaid's habitat 51 Easy-to-read writing
- 58 Jekyll's 12 Down
- 59 Self-evident truth
- 60 Advance of funds
- 62 Chief Norse god
- 63 Move edgewise
- 64 Care for very much
- 65 Landlord's income
- 66 Cavalry mount
- 67 Distort, as data

DOWN

- 1 Pie __ mode
- 2 Catty remark
- 3 Tech support caller
- 4 Spicy Asian cuisine
- 5 Eye quickly
- 6 Orderly formation
- 7 Ivy League school in Philly
- 8 Corrosive compound
- 9 Mushroom part
- 10 Actress Stone 11 Components

- 12 Alternate name
- 13 Unblinking look

- 25 Trails off 26 Fall with a thud
- 28 Part of the psyche

- 33 Meaningless talk
- 34 Horseshoes turn
- 36 Genesis garden
- 40 Undercover grp.
- 45 Appeared to be
- 46 Musical sense
- 48 Bonnie's partner in crime
- 49 The Thinker sculptor

- 21 Govt. health org.
- 22 State one's view
- 27 Shrewd
- 29 Loafers' lack
- 30 Imitates
- 31 Roofing sealer
- 35 Tri-level cookie
- 38 Chem lab vessel
- 39 Fruit from Turkey
- 44 Not so long ago
- 47 Can't stand
- 50 Plundered
- 18 17 19 23 25 | 26 | 27 | 28 38 | 39 45 46 47 | 48 | 49

15

- 58 60 59 62 63 64 65 66
- 52 Scottish girl

55 Adversities

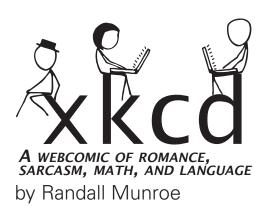
- 53 Stairwell sign
- 54 Shoreline phenomenon
- 56 Cozy corner

time

57 Made donations 61 Available for the first

16

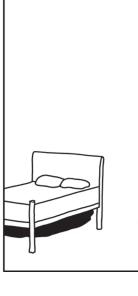
[2134] Too Much Talking





HOW WAS THE PARTY?

SO MANY CONVERSATIONS. I'M WORRIED THAT ALL MY OPINIONS WERE BAD. WHY DID I TALK SO MUCH? TIME TO HIDE UNDER MY BED AND NEVER SPEAK TO ANOTHER HUMAN AGAIN.





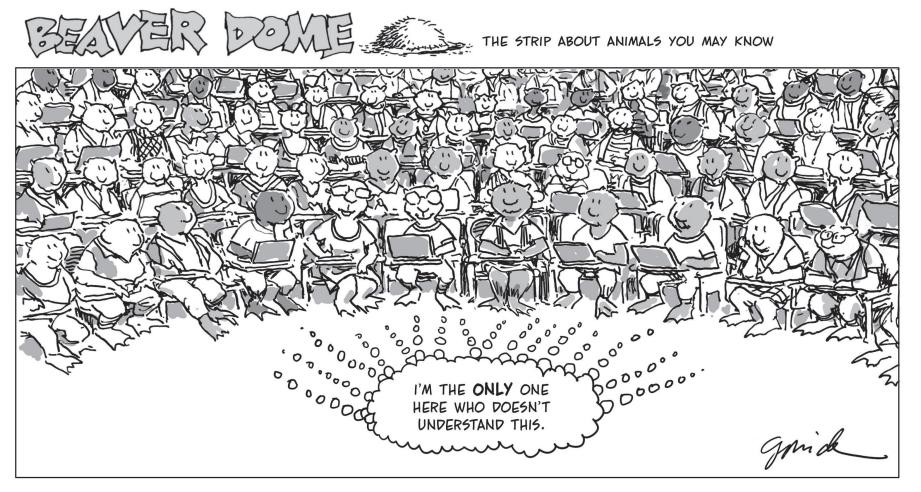
Festival

Solution, page 3

17+	 	12×	:	31+	i !	i !	4÷	:
4	-	270×		 	-	+	21×	1
2–		1–			72×	1		6
	28+		1	5+				20×
8		42×		1-	1	13+		-
3	2-		21+		2-	5	-	9
23+			-	6	-	3		4-
	10+	-		10+		360×		-
2	-	9×		-	2-		-	8
			!			!		

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

Don't Understand by Larry Gonick



FEATURE

Students play open-source Dance Dance Revolution emulator in Rebecca's Café

Dance cab installed by Robin Park '19 with funding from the De Florez Fund for Humor

By Amy Shim

Anyone can play an opensource *Dance Dance Revolution* (DDR) emulator at Rebecca's Café in Walker Memorial, thanks to efforts choreographed by Robin Park '19. The new machine, a state-ofthe-art StepManiaX that retails for over \$7000, is now free for anyone to use during Rebecca's Café business hours and available to MIT cardholders 24/7.

Park, in an interview with *The Tech*, said that he purchased the dance machine — referred to as a "dance cab" by the gaming community, a nod to the cabinet-like appearance of the original arcade machines — through funding from the De Florez Fund for Humor. He applied for the grant with help from his friend Tony Wang '19. A dedicated rhythm gamer, Park wanted a cab available that was easy to access.

"It used to be that the nearest cab was in Braintree," he said. "I was getting tired of making the hour and half trip on the T."

While DDR is perhaps the most well-known rhythm game, the StepManiaX at MIT does not actually run DDR, which is a proprietary game by Konami. Instead, it runs StepMania, an open source software that emulates DDR.

This isn't the first time MIT has had such a cab on campus. In 2002, during the height of the DDR craze, Chad M. Polycarpe '03 added a DDR cab to an arcade room on the first floor of the student center, where an MIT Federal Credit Union office currently resides. The arcade room existed as early as the 1980s and was eventually shut down to lease the space to more profitable vendors, according to past editions of *The Tech*.

"I used to go to MIT [to play DDR] well over a decade ago," said Alex Sofikitis in an interview with *The*

Tech. Sofikitis met Park through a New England rhythm gaming group on Facebook and helped assemble the cab. Though not MIT-affiliated, Sofikitis is an active member of the local rhythm gaming scene. "A lot of the best players from the early 2000s would frequent the place because the machines were maintained by the school, and the price was very fair compared to other arcades at 50 cents for four songs."

The steep price tag of the StepManiaX almost prevented its arrival at MIT. "I had very little hope because this thing costs \$7,000. I kind of felt weird asking for several thousand dollars when the fund usually only gives out a few hundred dollars," said Park. But after a few months of emailing back and forth, Park convinced the De Florez Fund committee to invest in a quality dance cab.

Standing about six and a half feet high, the StepManiaX consists of two side-by-side pads, LED displays, speakers, and load cell sensors. A light step is enough for the cab to register, unlike the stomping mechanism required of many archaic DDR cabs.

"This cabinet is a beauty," Sofikitis said. "[It has] a touch-screen interface that has little to no visual lag. ... At a school like MIT, it makes sense that you should have the most technically advanced dance game in the market for students to enjoy."

"The StepManiaX uses load cells, the same kind of technology that's in a bathroom scale," said Kyle Ward, entrepreneur and producer of the StepManiaX, in an interview with *The Tech*. "When you step on a scale, they tell you how much you weigh. In our application, we don't necessarily care about how much you weigh, but we're able to use software thresholds to basically emulate a switch."

Though the StepManiaX has had a few broken panels since its pur-

chase, Ward has sent replacement parts."The [current] panels are polycarbonate, so they're very strong plastic, stronger than acrylic. You can almost shoot bullets at polycarbonate. It never breaks." he said.

Park plans to remain in the Boston area after graduating and continue to help maintain the machine. He runs weekly rhythm gaming sessions, open to the public, which are posted at ddr.mit. edu. Matthew Hambacher '21, who also helped Park assemble the cab, plans to start an ASA-recognized rhythm gaming student group in the fall

"It's just been a really fun experience playing this as much as I have, since it's really easy to come here in-between classes when I have an hour or two to kill," said Hambacher in an interview with *The Tech*. "You meet all kinds of interesting people — just random people who want to play or try it out."

THE SOCIAL & ECONOMIC COST OF ENDLESS WARS



2:00-5:30 PM MIT 34-101 50 Vassar Street

Join us for a half-day conference examining the cost of US wars and conflicts and exploring ways in which these funds can be used to create a more sustainable, equitable, and just society.

Full list of speakers, workshops and more at radius.mit.edu



Topics include:

- The Tasks We Face
- The Costs of War
- The Bloated Pentagon Budget
- Saudi Military Aggression in Yemen
- U.S. Actions in Afghanistan & Iraq
- Divesting from Nuclear Weapons
- The Struggle for Affordable Housing
- The Moral Revival in Massachusetts

Register at https://www. brownpapertickets.com/ event/4217418

Co-sponsored by Radius, Massachusetts Peace Action, the MIT-Saudi Arabia Divest Coalition, MIT Students Against War, American Friends Service Committee, Institute for People's Engagement, Massachusetts Poor People's Campaign, and the Campaign for Peace, Disarmament and Common Security.

Mazzachanetts Institute of Technology

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

TRIPP LAKE CAMP Teach tennis, swim, canoe, gymnastics, kayak, water ski, photo and more

Tripp Lake Camp is looking for males and females who like to travel, meet new people, and teach activites to children. If you're interested in spending your summer in MAINE, give us a call or stop by our website for more information.

1-800-997-4347 www.tripplakecamp.com TRIPP LAKE CAMP for Girls

FOR LEASE | CAMBRIDGE

614 Massachusetts Ave. Central Square



Central Sq.

In the heart of Central Square

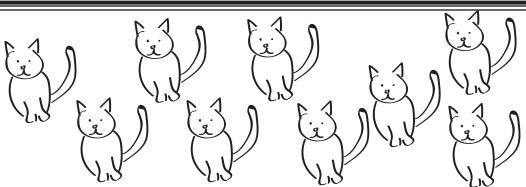
Available space: 2,400 SF Availability: June 1, 2019 Features:

- Large open floor plan with new windows and views of Central Square. 11+ foot ceilings.
- Recently renovated kitchen facilities
- 24/7/365 card access & video intercom
- Located directly above the Red Line T stop entrance and within walking distance of all Central Square amenities including 70+ restaurants, shopping & hotels
- Near bus 1, 47, 64, 68, 70, 70A, 83, 91, CT1
- Zipcar and BlueBikes locations nearby

Contact: Patrick Verbeke | www.ValtiCommercial.com Tel: +1-617-230-3638 | Email: Patrick@ValtiRealEstate.com

Kendall Sq.





Join The Tech You'd be a good CATch