MIT's Oldest and Largest Newspaper

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The Tech

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Volume 143, Number 16

Thursday, October 19, 2023

WEATHER, p. 2

THU: 63°F | 53°F
Mostly sunny.

FRI: 64°F | 57°F
Chance showers.

SAT: 62°F | 55°F
Showers.

OMAR OROZCO—THE TECH

LUChA hands out elotes at their SpookFest booth, Friday, October 13.

John Urschel speaks about school, football, and career aspirations

Urschel: 'In going from football to math, I think football really helped me have perspective.'

By Jayashabari Shankar, Russel Ismael, and Tina Zhang
STAFF WRITERS

Professor John Urschel of the Mathematics Department was appointed as an assistant professor in the fall of 2023. Urschel completed his PhD at MIT in 2021 and was a former NFL player for the Baltimore Ravens for three years.

The Tech spoke with Urschel as he reflected on his time in the NFL and as a PhD student. This interview has been edited for length and clarity.

TT: Who or what inspired you to play football professionally/pursue math at a high level?

Urschel: My dad inspired me to play football. When I was a kid, I would visit my dad in Canada and he had this office and his office had a portrait of himself next to the door, and it was him in his football uniform. I always looked at that when I was a little kid. My dad played linebacker at the University of Alberta.

As far as math goes, as long as I can remember when I was a little kid, I loved puzzles and quantitative games. I can't actually ever really pinpoint a moment where it's not like there was a moment where I really started to love math. I think that math is loosely defined. I've loved it ever since I can remember.

TT: How did you balance Division 1 football and academics at Penn State?

Urschel: When I first got to college, it was quite overwhelming. But eventually you get into a groove into a routine. You sort of learn. You learn when to do what. I really had a good habit in college of making sure I do the most important things first. I always made sure that I scheduled my classes as early in the day as possible to the extent that I could. I scheduled my personal football training as early as possible when there were choices about which time slot to do lifting or do conditioning.

TT: What was your journey to entering graduate school at MIT?

Urschel: Before I got to the league, I finished my undergrad in three years. I got a Master's because I really wanted to keep playing football. At the same time, I didn't want to do my PhD at Penn State because I did my undergrad there.

I'm listed on, you know, [NFL] draft rankings, and I decided to put the PhD on hold. I'm gonna play the league for a couple years, retire and go for my PhD. I play my first year in the league. Things went quite well and I started a bunch of games, but I felt unsatisfied like in my personal life I realized that I really missed the academic environment and being around other people who want to learn.

After my first year [in the NFL] I decided I needed to apply to a PhD program and I got into MIT. And I thought it was a really good fit for me because the sort of math I do is a little bit more on the applied side. I felt like I belonged here, so I accepted the offer and the rest is history.

TT: Was balancing graduate studies and professional football different from doing both in your undergrad? How did you strike the balance during your PhD?

Urschel: Very poorly. When I was a math major at Penn State, PhD classes there felt manageable. MIT's PhD program doesn't include all part-time students. I can tell you being a professional football player simultaneously was just too much. I was constantly stressed at work. There are only so many hours in the day. I can say in hindsight it makes for a funny story, but it was not the most pleasant thing to be doing both of these things at the same time.

TT: What did you find to be the most unexpected intersection between your math research and your career in the NFL?

Urschel: I definitely think as a kid, being quantitatively minded definitely helped me in a lot of the more analytic aspects of football. In particular, understanding how these responsibilities of different people fit together in a larger sort of theory or scheme while playing football was helpful. Being able to take information about what I'm seeing helped me more than maybe other people.

In going from football to math, I think football really helped me have perspective. I think a lot of times, math can feel very intense if you let it because you're trying to solve some math problem, and it's a little different than doing an experiment or testing some hypothesis. You can spend a very long time thinking about something and not really make any progress either way, so in that way, it can be a little frustrating.

I always kind of think and pretend to myself that I've already retired. Right now this is just this is my post retirement career. And so, I find that's a good way for me to look at it. My day as an MIT professor is much easier than my day as a professional football player.

TT: How did you respond to challenges in football versus in math (and

Urschel, Page 2

THE TECH

MIT community members gather in solidarity with Israel and the Jewish community, Wednesday, October 11.

THE TECH

MIT students attend a community vigil in support of Palestinian students, friends and community members, Friday, October 13.

JOHN URSCHEL

Read about pro athlete-turned-math professor John Urschel in an exclusive interview reported in *The Tech*. **NEWS, p. 1**

PHOTO GALLERY

PHOTO, p. 4

THE GIS OF 'EUNICE EXISTS!!'

A reflective article by executive editor Eunice Zhang. **CAMPUS LIFE, p. 6**

THE CREATOR

A review that doubles as a commentary on the state of Hollywood. **ARTS, p. 6**

THE IMMUNE SYSTEM

Read about the human immune system's role in memory and presentations of Alzheimer's disease. **SCIENCE, p. 7**

SECTIONS

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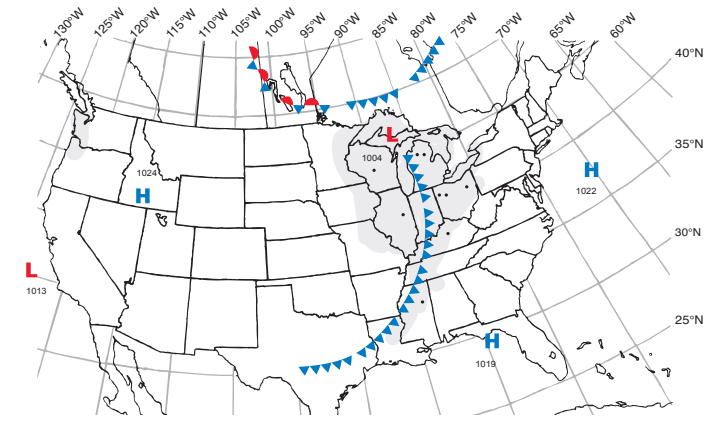
WEATHER

Showers to not rain on your parade

By Phoebe Lin
CHIEF METEOROLOGIST

An upper level trough is edging towards the East Coast just in time to dampen your weekend plans. A sizable Nor'easter is heading up the coast this weekend, bringing showers and possible downpours at times! Models currently disagree on the exact timing and amounts of rain, but showers are possible through Saturday, followed by wind gusts Sunday blowing the storm out. October has been fairly dry so far, so this storm might be looking to shake things up.

Despite the possible precipitation, it's a great weekend to watch the rowers on the Charles River at one of the largest iterations of the Head of the Charles Regatta coming up this weekend--just remember to bring an umbrella!



Situation for Noon Eastern Time, Thursday, October 19, 2023

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

Compiled by MIT Meteorology Staff and *The Tech*

Extended Forecast

Today: Mostly sunny. High around 63°F (17°C). South winds around 5-8 mph.
Tonight: Mostly cloudy. Low around 53°F (12°C). South winds around 8-12 mph.
Friday: Chance showers. High around 64°F (18°C) and low around 57°F (14°C). South winds turning east around 10-15 mph.
Saturday: Showers. High around 62°F (17°C) and low around 55°F (13°C). East winds 10-15 mph.
Sunday: Chance Showers and Breezy. High around 58°F (14°C) and low around 43°F (6°C). West winds 18-22 mph.

Exclusive interview with Math Professor John Urschel

Urschel, from Page 1

how these overlap)?

Urschel: You're told these things that really get beat into you that you're constantly chasing this perfection that you're never actually going to achieve consistently in terms of performance. You're constantly trying to do better no matter how well you've done and when things are going wrong or when things are performing poorly. The key thing is to always lean into your training, lean into your preparation, and stay the course. The idea that often shows up in football is the idea of purpose. Perfect practice makes perfect.

The way you are setting yourself up for success is something that has carried over into math, especially when I feel really stuck and feel like I'm not making progress. It's often helpful for me to take a step back and think about whether I am actually setting myself up in the best way to be successful at this? Do I need to go read some different resources to try to help me, you know, be better prepared to solve this problem? Should I talk to some other people to get some perspective?

TT: Which area do you find to be more competitive: football or academia?

Urschel: I will say football is very much more directly competitive, whereas in math it is much more indirect. As a math community, we really do usually feel like we're all part of the same community, with some exceptions. This is how it should be. In general, one shouldn't think of math as like some zero sum game. We're working together to try to solve problems of course, but how much you share with other people varies because you also need the job. There can be a little bit of competition because multiple people will be applying for the same position. There aren't many academic jobs compared to how many talented and qualified mutations there are, so it can be quite tough. But the good news for mathematicians, both undergraduates and PhDs, is that there are rewarding jobs in industry whether it be tech, finance or other fields.

TT: How do you visualize or conceptualize the math problems you work on? And what do you love most about the field of math?

Oftentimes, I do think very conceptually about things. I'll be walking home and decompressing from the day and I'm slowly letting the things I've been thinking about all day sort of seep in, and really let them sit. This happens a lot before I go to bed. I find that I've been thinking a lot during the day about different things I've been picking very actively. Oftentimes, I have an insight that I text to myself and I put my phone down and in the morning like often I find that I actually had some good insight.

Taking a step back and thinking about that work with separation is often a very productive way of sort of understanding how things work at a high level. You can do rough calculations in your head or thinking through steps in your head. But I find that sometimes you just get the answer or you sort of figure out the right technique by thinking about it directly. I find that to be really productive.

The thing I love most about math is learning. There are so many rich and beautiful results in mathematics that connect to each other. There's so much that I don't know. Every time I learn something new or slightly surprising in math, it's a really great feeling. The act of learning is just a really enjoyable thing. That's one of the great things about being a professor is that you get to just keep doing that the rest of your life.

TT: What do you believe is your biggest accomplishment in math? And, are there any future problems you'd really like to solve?

Urschel: I'm too young—I'm 32, I just got here. Let's save the greatest accomplishment five years from now, but I would say that my best results certainly lie in matrix analysis and matrix computations. Whether it's fundamental results about the nature of Gaussian elimination, with techniques that you learned in school to solve a system of equations or results about graphs and networks through looking at algebraic properties. I think that's probably the area of biggest contributions.

There are a couple of concrete problems for which I say "this is a problem I would like to see solved in the next however many years" and it's important to set those goals so that you are moving towards something concrete. But the joy of it, at least for me, is not the moment I solve that problem. The joy of it is the progress of getting to solving that problem, the joy of being at odds with a problem like struggling against the problem.

When you finally solve this problem, this is like the cherry on top. I feel like I understand everything or at least I understand enough to really say something powerful. I find this process of getting to solving the problem to be the most rewarding.

TT: What would you say your greatest accomplishment in football is, or your greatest accomplishment, in general?

Urschel: I'm quite proud of my time in Penn State, my alma mater—especially in my later years. This was a really tough time for a lot of people in that community. And in hindsight, when I think about my football career, that's the time period I really look back on very fondly, and that I'm quite proud of.

TT: What are your future career goals and aspirations?

Urschel: At this point in my career, I'm really happy to be back at MIT. I'm here as an assistant professor, so I'll be here for you know, probably the next six years or so. My big career aspirations are to keep doing math, solve really interesting problems and I am eventually looking forward to being in a tenured position at some point, settling down, buying a permanent house. That's a milestone.

Sport Taekwondo wins home tournament with a 92-point lead over 2nd place

By Hannah Friedman
STAFF WRITERS

MIT hosted the first of five tournaments in the East Collegiate Taekwondo Conference (EETC) Sunday, Oct. 15. Roughly 600 students from 18 different schools competed at the tournament, separated into A, B, and C divisions based on competitor skill and experience in order to be more accessible and beginner friendly.

MIT Sport Taekwondo member Titus Tsai '26 explained that EETC is made up of two different match types: poomsae (forms) and sparring. "In poomsae," he said, "competitors are judged on the accuracy and presentation of their form — a systematic sequence of moves demonstrating certain techniques (higher ranked belts perform harder forms). Meanwhile, sparring is made up of quick 45 second rounds with the first to three wins emerging victorious.

Tsai explained that "in the sparring matches competitors score two points by landing kicks on the opponent's hogu (padding worn around the torso) or three points for (light) head contact (in A and B teams). Punches to the hogu also score a point, and technical points may be earned for more elaborate kicks."

MIT placed first with 376 points overall (Northeastern finished in second place with 284 points — 92 behind MIT) at the tournament, which was attended by schools like West Point, Harvard, and the University of Michigan. Five of MIT's teams won gold in their respective matches. This victory follows their winning performance in the last tournament of the 2022-2023 academic year, held at the University of Vermont, in which MIT ranked first overall with 468 points.

The next tournament will be at Cornell on Sunday, November 5th, and with this incredible and energetic start to the 2023-2024 EET Conference, I suggest tuning in to support MIT's Sport Taekwondo team.

SPORTS BLITZ

Friday, October 6th:
- **Women's Volleyball** defeated Swarthmore College 3-2

Saturday, October 7th:
- **Women's Lightweight Crew 2X:** 1st of 2: 4+: 4th of 11; 8+: 1st of 19 at the Quinsigamond Snake Regatta
- **Men's Lightweight Crew** placed V8+ "A": 1st; V8+ "B": 5th; V4+: 4th at the Quinsigamond Snake Regatta
- **Women's Volleyball** defeated Illinois College 3–0
- **Field Hockey** defeated Worcester Polytechnic Institute 2–1
- **Men's Cross Country** came in 1st place (78 points) at the Pre-National Meet
- **Football** lost to Springfield College 10–38
- **Women's Cross Country** came in 2nd place (99 points) at the Pre-National Meet
- **Women's Volleyball** defeated Albion College 3–0
- **Women's Soccer** defeated Springfield College 4–1
- **Water Polo** lost to Harvard University 4–20
- **Men's Soccer** defeated Springfield College 2–0

Sunday, October 8th:
- **Women's Tennis** wraps up fall schedule at NEWITT Tournament at Smith College
- **Men's Tennis** wraps up fall schedule at Skidmore Invite
- **Sailing** came in 4th place at Connecticut College and 5th place at MIT
- **Women's Soccer** defeated Williams College 1–0
- **Water Polo** lost to Brown University 11–16

Tuesday, October 10th:
- **Women's Volleyball** defeated Wellesley College 3–0

Wednesday, October 11th:
- **Women's Soccer** defeated United States Coast Guard 3–1

Saturday, October 14th:
- **Men's Heavyweight Crew V8:** 2nd; 2V8: 3rd at Head of the Kevin
- **Rifle** lost to Army 4337–4656
- **Water Polo** lost to Pomona-Pitzer 11–12
- **Men's Cross Country** placed in 8th in the White Race and 12th in the Blue Race at the Connecticut College Invitational
- **Women's Volleyball** defeated Worcester Polytechnic Institute 3–0
- **Women's Cross Country** placed in 8th in Connecticut College Invitational White Race
- **Football** lost to United States Merchant Marine Academy 14–28
- **Women's Volleyball** defeated Bridgewater State University 3–0
- **Men's Soccer** tied Emerson College 2–2
- **Women's Soccer** defeated Salve Regina 3–0
- **Field Hockey** defeated Clark University 5–0
- **Water Polo** defeated Occidental College 15–12

Sunday, October 15th:
- **Sailing** placed in 15th at Boston College, 12th at Yale University, and 4th at MIT
- **Water Polo** lost to Salem University 11–6

Monday, October 16th:
- **Women's Soccer** defeated Lesley College 6–1

Tuesday, October 17th:
- **Field Hockey** defeated Mount Holyoke College 9-1
- **Women's Volleyball** defeated Wheaton College 3-0

Wednesday, October 18th:
- **Women's Soccer lost to** Babson College 1–2

Clarity from Christians at MIT

A call for transparency

By Argen Smith

Growing up an enthusiastic member of the Southern Baptist Church, I was taught to "hold tension" between my beliefs as a Christian and the chaotic ideals of the secular world. Tension would allow me to befriend, infiltrate, convert those outside the Church without losing my faith in the process. An important part of this was to hesitate to say outright the more objectionable practices of my church.

The Southern Baptist Convention, the governing body of the Southern Baptist Church, bans women from leadership roles. They believe in biblical gender roles, bar members from gay marriage, see transgender peoples' transitions as corruptions of the bodies God gave us, and prefer that women submit to their husbands. But when you entered my church you'd see millennial pastors in brightly colored button ups and smiles in place of answers. Only once you depended on the community would you hear about the rigid gender roles and hateful ideologies that entangled you.

As a queer person, as someone who would be barred from leadership, as someone who would not be able to live a fulfilling life under these rules, my self respect puts me at odds with my former church. And yet, I don't believe that calls to institutionally shut down groups holding these ideas would have a positive effect: I hope only that the ability of Christian groups on campus to harm queer community members in private meets a swift end.

I contacted all non-race-specific Christian groups that presented at REX Midway this year, posing as a freshman in search of guidance about my relationship with queerness and God. Responses from the Lutheran Episcopal Ministry, Alpha Omega, Cross Products, Christians on Campus, and Every Nation Campus fanned from affirming to manipulative, even though all professed how welcome my fake freshman self would be.

The Lutheran Episcopal Ministry was the fastest and simplest response: affirming gospel in a welcoming community. Next came the Cross Products, with striking clarity. Acknowledging a far-from-perfect past and an imperfect but improving present, their representative shared without prodding that queer acceptance within the group may be a mixed bag, but provided me encouragement and resources to find an explicitly affirming church (gaychurch.org).

On the other hand Alpha Omega was clearly not affirming from their first email, although they danced around solid statements and used manipulative framing. In response to my asking if Alpha Omega was affirming, their representative answered "we do try to take the scriptures at face value and hold to them". Where the Cross Products noted the possibility of a genuine, affirming, Christian faith, Alpha Omega framed proud queerness and adherence to scripture as fundamentally incompatible.

As an overview of their church's approach to queerness, they also linked Strength in Weakness, a site with informational videos on whether it is a sin to feel gay (answer: no, just don't act on it), whether you should attend gay weddings (answer: yes, but make sure the grooms know you're happy to talk with them about God's plan for a heterosexual lifestyle), and how to escape your bisexual porn addiction (answer: make friends with men and women at your church).

This sounds transparent and easily avoidable by the self-respecting queer Christian, but the manipulation in Strength in Weakness comes from the messenger: Guy Hammond, a Christian, a minister, and a former gay man. Relatable to the young Christian realizing their sexuality, he presents the ideal of an abstinent or falsely heterosexual gay life.

Alpha Omega, for its manipulative tactics, did immediately share their lack of support. Every Nation Campus (ENC), the group aimed squarely at conversion on campus, lacked the honesty even to manipulate in one message. Beyond welcoming me to their community, they would not offer specifics unless I met them in person.

The ENC branch at MIT is run through Aletheia church in Cambridge, though, so their sermons are publicly available online (https://www.aletheia.org/resources/sermons/). The pastor, Adam Mabry, preaches exactly one type of marriage and family. One man, one subservient woman, no room for compromise within the confines of his gospel. Given this information, I hope that the MIT community can see these groups with clarity.

It is more than possible to be a practicing Christian and an ally to the queer community on campus. The members of the deceptive and unaffirming groups have chosen easy, harmful deception over unpopular, proud declarations. To students: know where your organizations stand. To groups: make your policies clear and public. Diversity of thought keeps our community vibrant; transparency keeps our community safe.

Argen Smith is majoring in Course 8 and 12 and is a member of NAIA exec.

Upcoming Sports Events

FRIDAY 20

Women's Volleyball
at Williams College
7 p.m.

SATURDAY 21

Men's Water Polo
at DIII Eastern Championships

Women's Lightweight and Openweight Crew
vs Head of the Charles

Men's Lightweight and Heavyweight Crew
vs Head of the Charles

Sailing
United States Coast Guard Academy, Yale University, and MIT (Walter C. Wood Sailing Pavilion)
11 a.m.

Women's Volleyball
vs Middlebury College
11 a.m.

Football
at Maritime College
12 p.m.

Field Hockey
at Babson College
1 p.m.

Women's Soccer
vs Worcester Polytechnic Institute
1 p.m.

Men's Soccer
at Babson College
1 p.m.

Women's Volleyball
vs Tufts University
3:30 p.m.

SUNDAY 22

Sailing
United States Coast Guard Academy, Yale University, and MIT (Walter C. Wood Sailing Pavilion)
11 a.m.

Men's Water Polo
at DIII Eastern Championships

Women's Lightweight and Openweight Crew
vs Head of the Charles

Men's Lightweight and Heavyweight Crew
vs Head of the Charles

Women's Soccer
at Colby College

TUESDAY 24

Women's Volleyball
at Clark University
6 p.m.

WEDNESDAY 25

Women's Soccer
at Wellesley College
3 p.m.

Men's Soccer
at Worcester Polytechnic Institute
4 p.m.

Field Hockey
vs Roger Williams University
6 p.m.

FRIDAY 27

Men's Swimming and Diving
vs Harvard University
6:30 p.m.

Women's Swimming and Diving
vs Northeastern University
6:30 p.m.

SATURDAY 28

Men's Heavyweight Crew
at Head of the Fish

Women's Openweight Crew
at Head of the Fish

Men's Cross Country
at NEWMAC Championship

Women's Cross Country
at NEWMAC Championship

Rifle
vs Plattsburgh State
9 a.m.

Rifle
vs United States Coast Guard Academy
9 a.m.

Sailing
Boston University, Brown University, Tufts University, and MIT (Walter C. Wood Sailing Pavilion)
11 a.m.

Football
at Norwich University
12 p.m.

Men's Water Polo
vs Iona University
12 p.m.

Women's Soccer
at Emerson College
1 p.m.

Field Hockey
vs Salve Regina University
1 p.m.

Men's Water Polo
vs LIU
5 p.m.

Men's Soccer
vs Wheaton College
5 p.m.

SUNDAY 29

Sailing
Boston University, Brown University, Tufts University, and MIT (Walter C. Wood Sailing Pavilion)
11 a.m.

Rifle
vs Plattsburgh State
9:30 a.m.

Men's Water Polo
vs Princeton University
10 a.m.

TUESDAY 31

Field Hockey
NEWMAC First Round

Men's Soccer
NEWMAC First Round

Women's Soccer
NEWMAC First Round

WEDNESDAY 1

Women's Volleyball
at Babson College
6 p.m.

ALEXA SIMAO—THE TECH

Students harvest apples at Honey Pot Hill Orchards on DormCon's apple picking trip, Tuesday, October 10.

ALEXA SIMAO—THE TECH

An obstacle course and bouncy house stand on Field A for the Class of 2025 field day event, Friday, October 13.

KATE LU—THE TECH

MIT community members attend a local elections panel discussion organized by MITvote, Thursday, October 5.

ALEXA SIMAO—THE TECH

Students get their faces painted at SEB's SpookFest outside the Student Center, Friday, October 13.

KATE LU—THE TECH

Student groups move back into newly renovated offices in the Student Center, Friday, October 13.

ALEXA SIMAO—THE TECH

Students browse the List art gallery, looking for a piece to take home for the semester.

MELISSA JIMENEZ CAMEJO—THE TECH

Visitors view digital games, VR experiences, and generative poetry at "Hops Ahead."

MICHELLE XIANG—THE TECH

Students from Class of 2024 have fun during Disorientation at the Museum of Science, Friday, September 29.

OMAR OROZCO—THE TECH

MIT Symphony Orchestra closes out their concert, titled "Struggle Overcome", Friday, October 13.

Debate: Is STEM Systemically Racist?

Co-Presented by the Adam Smith Society and MIT Free Speech Alliance

Moderated by Nadine Strossen

Past President, American Civil Liberties Union

Thursday, November 2, 8:00 p.m.
Wong Auditorium (E51-115)

Free Admission, Registration Encouraged (scan QR below for details)

Featuring:

- Chad Womack, VP of National STEM Programs, United Negro College Fund
- Jaret Riddick, Senior Fellow, Center for Security and Emerging Technology, Georgetown University
- Luana Maroja, Professor of Biology, Williams College
- Erec Smith, Associate Professor of Rhetoric, York College of Pennsylvania and President/Co-Founder, Free Black Thought

SMITH SOC SLOAN / MIT Free Speech Alliance

Scan or visit
mitfreespeech.org/events.php

EUNICE EXISTS!!

the gis of 'eunice exists!!'

i genuinely feel pretty happy about this first articlussy ʅ(˘︶˘)ʃ♡

By Eunice Zhang
EXECUTIVE EDITOR

the trailer :<

- "i feel like im reading a tumblr post not a newspaper article"
- "overall very nice, and i think it gives a realistic perspective into a small quokkie's life in college!"
- "i'm not gonna lie I understood 10% of it"

introduction >:

i had to do an elevator pitch recently as part of a workshop thingy — and it made me realize, talking about yourself is *extremely* hard. like, what if "i'm MALIGNING you by not being my full, genuine, authentic self? then i'm lying and that's HORRIBLE — it's time to burn at the stake in hell, even god can't save me now" vibes.

you know, it's actually really funny because i've spent a LOT of time worrying about this article, but the trailer + first paragraph basically tells you everything you need to know about what to expect from 'eunice exists!!'

tl;dr: i am unhinged, i am constantly hrrgy, and i see the world as a series of long, winded, run-on sentences that somehow go everywhere and nowhere at all.

my sister emeri says that there are only two constants in life — change and yourself, and she's right (older sisters are always right!!) i experience constant emotional turmoil (change) & i am inded eunice (myself).

welcome to 'eunice exists!!' it's me!! i'm eunice!!! i exist!!!! onwards, babygirls, as we venture into the great, beautiful, unknown cosmos that is life.

side note: what's a hrrg? :C

well, i'm so glad you asked! also, it's probably good for me to explain this given that i'll be saying this A LOT in my articles (this one alone has 33 counts of the word hrrg) — plus, it always comforts me to realize that i'm not the only once experiencing these feelings, so i hope it can do the same for you.

hrrg is more of a vibe than anything else, but if i had to define it: a feeling of stress/shame that may not be rational, yet you can't help but feel it anyways. hrrg can be used as a adjective, noun, verb, anything you want, really! ex: "i'm feeling so hrrgy today :(" "oh my god i hrrged all over the place" "do you want to talk about your hrrgs uwu?"

side side note — ultimately, the most important thing to remember is that you never hrrg alone ♡ it may sound cheesy, but i'm being so for real.

especially at a place like mit, where extreme hosage and hrrg can often feel like the default state of existence, it can be easy to drown yourself in a hrrgalicious frenzy — but i hope you can remember there are so many people who love you and want to support you!

whether that's a friend, a family member, gra, professors/ta's, s^3, there are plenty of people who want you to succeed and do well! plus, if this helps — there's a 99% chance that i'm experiencing massive hrrgs right now too, because to be honest i always am.

so at least that's one other person hrrging with you!!~ and i'm rooting for you, always ٩(´□`*)و ♡

a proper introduction! :O

hello!! it's very nice to meet you. my name is eunice. you can also refer to me as euni, moonicorn iphone7, don moonicorleone, or the love of your mother's life ;)

i am a queer, chinese-american girl (?? woman ??? feminine-presenting person ???? idk, gender is weird and scary ;-;). i really enjoy eating bread + nyommy foods, and appending -ussy to every single word possible. i grew up in a number of beautiful places, which you'll learn more about if you stick around for this column :D

speaking of places... you know what's a pretty cool place? mit!! let me tell you more about that! i'm an urban planning & computer science (11-6) major, because i *really* like trains. (side note: one of the best decisions i ever made was declaring 11-6 instead of 6-3. "you're not going to find a job anyways, so you might as well do something you like," as my lovely & brutally honest friend jess so kindly put it.)

my primary spheres of existence here are beast (2e on east campus; nertz, haikus, and waffle night!), mit esp (educational studies program; we run splash!), and of course, the tech (you should join us!! email tt-join@mit.edu — we have good food and even better people ♡).

while this introduction is getting long, it'd be remiss to truly introduce myself without talking about the most important people in my life — my sisters: zizi, emeri, and emmanuelle.

they are the best things that have ever happened to me and probably the best thing that ever will; there will never be enough words or ways to explain the depth of how much love i have for them.

it is very rare for words to not capture the intensity of my feelings, and this is one of those times. how can i possibly put into the words the feeling of knowing there are three gorgeous, beautiful, amazing, pussy-popping slay QUEENS(!!) who have supported me unconditionally through my lowest lows and highest highs? it's love, and true love is something you feel in your heart rather than intellectualize in your brain.

so while i may say "my story," it's really "our story" — my life is inextricably also the lives of my sisters — every time we cried together and smiled together; every time we laughed over degenerate memes on instagram, called the quokka signal in times of great distress, had blowout arguments over that one (1) pair of abercrombie shorts (i am still traumatized)

my life is a story of knowing — knowing always, that there are maybe only two, but really three constants in my life — change, myself, and the eternal love of my sisters. i love them for all the words, memories, and stories we've shared together — i love them with all of this, and then a thousand times more.

what's a GIS? O:

over the summer, i started a practice of writing 'general intent statements' (GIS!) for my new projects — basically, a GIS is a document explaining what i'm doing, why i'm doing it, and then any other thoughts or vibes i was in the mood to share at the time of writing.

first, the meta-GIS of the GIS — why GIS?

i get stressed and depressed very often, and when this happens it's extremely easy to rapidly descend into a hrrg spiral. reasons for having a hrrg spiral can range from anything from "oh my god this person HATES me" even though i have zero (0) evidence of this being true or "oh my god i have no friends i'll be a lonely potato forever :(((("

but ultimately, all forms of hrrg spiral end in one place and one place only: "life sucks, everything sucks, i suck." in a way, it's oddly comforting because (1) there's a sense of familiarity — i've been here, experienced the bottom of the spiral before, and i've gotten through it before!! (2) i'm not alone, hrrg spirals are universal!

and while rational eunice knows that these hrrgs are Objectively Not True™, stressed and depressed eunice does not. so having a GIS is nice to ground myself, to know that while current eunice is operating under a "oh no this is horrible and embarrassing and scary and weird and i just want to go back into my cozy cave room and hibernate like a turtle" mindset, rational eunice has Reasons and Rationale™ for writing this campus life article!

GIS: what is this column? :}

this is a column where i exist & share my thoughts about existing. period, on god, QED!

i have many, many, *many* ideas for this column — including but by absolutely no means limited to:

1. an extended remix of my soliloquy about "the joys and terrors of public transportation" (the joys are unbelievably wonderful and the terrors are unbelievably horrifying)
2. how alpha-beta-omega fanfiction unironically provides invaluable insight into societal gendered power dynamics
3. the best romance songs to listen to as part of your self-actualization journey
4. most importantly, why the best thing you can do for yourself is to always be kind!

someone asked me recently what exactly my column is going to be like – to be honest, i have no clue. you can think about it as a biweekly blog/random rant/philosophy hrrg crisis space, i guess??

i say biweekly, but honestly — this is mit, the firehose drowns everyone in hrrgs. so if i disappear for an issue, it's probably because i'm dying in psets or being Generally Stressed.™ while i can't promise any sense of consistency or normality, i can say with confidence there will be more to come of 'eunice exists,' just you wait!! >:)

GIS: why this column? :{

> I GOT REJECTED FROM THE MIT ADMISSIONS BLOG!!

i applied to be an mit admissions blogger and was rejected. at this point, you can probably see what's coming next, LOL — i hrrged and brrged all over

Hrrg, Page 7

FILM REVIEW

The Creator manages to create a stunning world without much sense

Incredible budget efficiency on visuals, but $0 spent on plot

★★☆☆☆

The Creator

Directed by Gareth Edwards

PG-13, Now Playing

By Cameron Scott Davis

At the end of the day filmmaking is a business: a truism that has been on glaring display this year thanks to the prolonged WGA strike and the teeth-pulling difficulty of getting studios to the negotiating table.

And, as in any business, cost efficiency is the name of the game: how much return can you get on your assets? In the post-COVID world, the answer to this has been "not much"; audiences turn out to theaters for the highest-budget, biggest-action movies, and even those tend to flop more often than not. (Just look at the 2023 box-office disappointments *Mission Impossible: Dead Reckoning Part One* and *Indiana Jones and the Dial of Destiny* which, as some of the most expensive movies ever made, together cost $600 million and struggled to recoup it.)

That's why *The Creator*, a new science-fiction film from *Rogue One* director Gareth Edwards, deserves some credit for trying its best, even if its screenplay and performances end up too messy and forgettable for the film to live up to its potential.

Through a classic exposition sequence, we're introduced to an alternative world, in which artificial intelligence (AI) became rapidly advanced in the 20th century, coexisting peacefully and productively with humankind until 2055, when a nuclear warhead was detonated in the Los Angeles metro area. The resulting deaths of millions caused Western countries, headed by the United States, to ban AI. Eastern countries, headed by the invented Southeast Asian region "New Asia" disagree and continue to work with AI and harbor robots. In particular, the mysterious "Nirmata" (Nepalese for "Creator"), inventor of AI, is reportedly living underground in New Asia and developing a new weapon; the US is keen on finding and killing him before he completes it.

All of this world-building leads us to Joshua, a US military operative undercover in New Asia searching for Nirmata. Things go haywire in his mission; his pregnant New Asian wife Maya is killed, and he leaves the military for good. That is, until he's approached five years later with an opportunity to rejoin a special ops group picking up on a warm lead for Nirmata's whereabouts. Joshua is staunchly opposed to the offer until the generals in charge inform him that Maya may still be alive and working with Nirmata. This is enough motivation for Joshua, who sets out to New Asia to engage in all sorts of futuristic battles on a seemingly doomed quest. Along the way, he picks up "Alphie," a humanistic AI child with seemingly extraordinary power, and the two then form a bond as they barrel through one sci-fi climax after the next.

The film is chock-full of breathtakingly cool visuals set within a completely original landscape. For a movie with this budget and scope to be built off of no intellectual property (IP) in this day and age is refreshing, and as we're introduced to each new locale, weapon, and character, we have no choice but to marvel at the cleverness and sheer quality of the work. A huge drone ship headquarters, the *USS NOMAD*, is particularly striking. As hinted at above, this is especially impressive considering the team worked with a fraction of the typical cost; director Edwards and freshman cinematographer Soffer have worked wonders on a budget of just $80 million (for a project that would normally have cost $300 million, by one estimate). In interviews, they discuss using the low-cost Sony FX3 camera, relying mostly on natural lighting, and shooting on site location as ways to lower spending while making the film more immersive, succeeding on both fronts.

It's a shame, then, that the accolades stop there. The cast is as flat as could be: John David Washington does not convey his potential as a leading man, Gemma Chan is dull and distant in what could have been a riveting revolutionary role, Allison Janney is horrifically miscast as a military colonel with a laughable backstory, and besides his striking voice, Ralph Ineson is nowhere near threatening enough to be the antagonist this film needs. The strongest performance is that of seven-year-old newcomer Madeleine Yuna Voyles who plays the mostly wordless AI child, Alphie.

To be fair, the actors, while leaving a lot to be desired, aren't given much in the way of a script. Written by Edwards himself, there's some solid conceptual groundwork — political themes around drone strikes, the war on terrorism, advanced technology, and the East-West divide. Ultimately, though, it fails to say anything interesting or conclusive by the end of the film, instead being waylaid into all sorts of scriptwriter improbabilities, "reveals" that land with a thud, and an uncountable number of deus ex machina moments. If the movie is rough thematically, individual moments verge on painful. Allison Janney's hard nosed soldier repeatedly says "Hack everything!"; half-baked one-liners like "Whoops, sorry, took a wrong turn!" are unfortunately reminiscent of the new *Star Wars*; we see the same romantic flashback probably half a dozen times. Couldn't they have shot more B-reel footage? Even Hans Zimmer, who does the score, phones it in.

In the challenging economic environment of Hollywood in 2023, *The Creator* sets a commendable model for how to be smart with a budget and avoid retreading the same IP. Movies looking to follow its footsteps just need to accomplish these feats with a better script and a more talented cast.

to me, writing is everything — a steadfast anchor in vast turbulence

Hrrg, from Page 6

the place. "oh no, this means my writing is MEANINGLESS and TERRIBLE." the admissions blog is like, the golden standard of epicness for being an mit student writer, in many peoples' minds.

so i hrrged for a couple days, and then i was like, hold the fuck up.

with all love & respect eunice, you deserve better than moping and crying all day over this. you are cool and nice and squishy and very badass!! rejection is a natural part of life. at the end of the day, i'm proud of myself for at least trying — i'd never have known what could have been if i didn't at least try.

still, it's always easy to focus on people's Cool Things and Accomplishments™ and forget the many strewn side paths that it takes someone to get there. so i hope that this makes this column feel a little less scary and a little more approachable!

> I LOVE WRITING!!!

as the iconic line from *mr. brightside* by the killers goes, "it started out with a kiss, how did it end up like this?" from a purely aesthetic purpose, this is just perfect. but also, i feel like it pretty much encapsulates my writing journey.

in 6th grade, my best friends and i were absolutely obsessed with the warrior's cats series by erin hunter. if you've read it before, you are probably nodding in mutual commiseration. if you haven't, it's *beyond* unhinged — tl;dr: a bunch of wild cats form clans, fall in love, argue, meow, and are *extremely* feral.

whatbetterwaytohonorartthanimitation?

hence, the collaborative self-insert roleplay warrior's fanfiction ("her belly SLICED OPEN and four kits LEAPED out of her stomach" for a very accurate rendition of the cat birthing process). from there, "the rest is rust and stardust" (obligatory i-do-not-endorse-lolita disclaimer, i just really like this line :C) — writing and i were meant to be together from then on, and ever since.

in middle & high school, i was *really* depressed. when you get depressed, it's easy to forget all the good things in life. sometimes that's all i can feel about that time; a sense of embarrassment & shame that existing was so painful. and yet, i remember the writing.

illicit pusheen drawings & commentary post-it note exchanges that got me put in time-out for disrupting class in 6th grade, conducting a full-fledged assessment of my attraction level to every boy in my middle school science bowl team in my very first journal, reading the same egyptian historical fiction romance novel a hundred times in one summer.

if you want to find my childhood, all you need to do is look into the lines of prose and paragraphs that i read & wrote. it started out with unhinged feral cat fanfiction, and i don't know how it's going to end up — maybe, like this?

the point being — writing got me through the hardest times in life; it's how i tell people i love them; it's my way of making peace with the past and beginning to look forward to the future; and it's how i #livelaughlove (YAS_slay!)

to me, writing is everything — a steadfast anchor in vast turbulence of a world full of hrrgs and unexpected outcomes, the comforting rainfall of thoughts after a long and weary day. it's the fiber of my being and root of my soul — the first true love of my life.

> I LOVE NEWSPAPERS!!!

i have a *huge* soft spot for newspapers — i've been doing this stuff ever since elementary school; all through middle school, high school, and now in college.

nothing can compare to the tender feeling of a freshly printed edition of the tech in my hands (haikussies!!); highlighting an event or person that reminds you that life is beautiful; and of course the frustration of "HOW do i get rid of this goddamn accursed orphan line >:(" have kept me company through the many ups & downs in the rollercoaster of life.

to me, newspapers are most special in the way that they create community — the writers & photographers; interviewees & readers; designers & editors — while we all have different lived experiences, in the end we're all working towards the same goal: make something beautiful.

in a time when it's so easy to feel like one among (us ඞ [of]) billions, i found friends and family through newspapers of all different shapes and forms. they breath color into life – lighting up the threads of our connections with others which might not have other been realized. if you want rage and hurt, love and laughter — if you want life, it's all in these pages, really.

> IT'S BETTER TO BE IMPERFECT THAN NONEXISTENT!!!!!

it's always easier to take the leap of faith when someone has done it before you. over the summer, a friend made the jump of a LIFETIME! (he posted a blog article on substack).

i read it many times because it was really good, particularly: "it is okay if things do not go perfectly, or even "well", whatever that means. sometimes, they just need to happen." and i was like. wow. that resonated with me a *lot*.

i've wanted to write a reflective piece like this — a story about myself, not just stories of and for others (though i love those too!!) — for years now. but i had so many hrrgs that prevented me from writing — oh, my silly strings of words are nothing special, they're Windy & Long & Convoluted & Weird & Strange! or, what meaningful could i possibly have to share with the world? D:

yet the way he said it made it sound simple — just try, you know? get over the fear and take the jump, because sometimes you just need to do it. the hrrgs of i "*could* have done this better," "*should* have done this earlier," "*would* have [liked to spend more time with your father last night ;)]" will never go away, hrrgs are an unavoidable part of experiencing life in all it's beauty and chaos.

over the course of writing this article, my mentality has switched from "wow i'm like the next joan didion of the literary world. y'all should be on your KNEES singing praises for me >:C" to "wow i'm like. such a horrible untalented writer i should go hide in a shed and never ever leave D:" probably a million times.

but like life, the answer is often in the in between — cliché as is, nothing is black or white. my writing is neither perfect nor worthless — it's real, it's here, and it's finally happening!! in some ways i've truly been waiting my whole life for this moment, and i'm so glad to share this with you!! i hope you can find comfort in reading this, as i have in writing it.

conclusion :3

i read this really phenomenal fanfiction in high school about being queer (real), desperately simping for a coworker/friend/person (too real), and the "mortifying ideal of being known" (TOOO REAL T^T).

the fanfic was banger [and the two main characters indeed ended up banging, thank *god*], but the author's note had me astral projecting into heaven at how amazing it was. the first time i read it, i sat there for a solid 30 minutes, truly at a loss for words.

it went something like this — i see you; you in the closet, you simping desperately for someone who doesn't know, you living this sort of story. i see you; and i'm glad you've seen me, too (eunice's paraphrased remix edition).

sometimes, i have this belief that my thoughts and ideas only have meaning if someone else tells me they do. i crave validation (so valid tbh), of someone else saying that they appreciate what i have to say.

but this weekend, i went to "stupid fucking bird," a vibrant & hilarious production by mit lost, and it made me realize that maybe this doesn't matter as much as i make it matter in my head. for context — the main character of the play is conrad, a struggling playwright and the definitional prototype of a man ROLLING in the hrrgs.

i never thought i would meet someone more hrrgy than myself, but then i saw him soliloquy about how horrible his life was what felt like a lifetime in little kresge. hrrg is never a competition, but if it was, this man takes the first place on the podium anyday.

conrad has a highly tenacious relationship with his mother, a famous actor who's currently dating a famous writer lady (!! i just love women !!)

he's really mad at his mom for being not nice to him, hates his mom's girlfriend for being a writer, and then, get this: his childhood love and babygirl abandons him to make out with his mom's girlfriend — like i said, ULTIMATE levels of hrrg.

but beyond conrad's hrrgy struggles, the play features a lot of interesting discourse about why we create art — is it to make something real, or just to be remembered forever? is it to transform the world with new ideas, or just to receive external validation?

and often, i wonder — am i just writing this for validation? for someone else to tell me "good job!" or "i really enjoyed hearing what you said!" honestly, yes.

because people telling me they appreciate me feels good, that's natural! and at the same, i genuinely feel pretty happy about this first artiCLussy ¯\(˘‿˘)/¯♡ these two perspectives aren't mutually exclusive, & they can both coexist inside my cute little brain!

yes, this article is Windy & Long & Convoluted & Weird & Strange. yes, it's probably completely incomprehensible to 99% of the population because i fully understand that "artiCLussy" and "hrrg" are completely made up words. yes, i'm definitively doing this part for myself, part for external validation, and part for complimentussies!

nevertheless, i tried my best! at the end of the day, i truly believe that's all we can really do, and so i am very proud of myself! and to you reading this — even if we never speak face-to-face, i'd like to tell you one last thing.

just like that author's note — through my writing, in my own way, i've seen you and you've seen me. i'm so grateful for that — thank you, truly, for reading to the end. i appreciate you deeply.

love myself,
and you-all-ways,
eunice ♡

SCIENCE

The human immune response damages our ability to learn and remember, even before symptoms of Alzheimer's disease arise

By Karie Shen

Your immune system could be the cause of memory loss.

Research shows that the brain reacts to Alzheimer's disease as if it were an infection, opening a new avenue for preventing cognitive decline.

Your immune system is your body's guard against illness. So, when it's activated, you're being shielded from disease, right? Well, not always.

Recent findings from the Gan Lab at Cornell University reveal that tau, a hallmark of Alzheimer's disease, triggers a response in microglia, the brain's immune cells. But instead of protecting the brain, this immune response appears to reduce cognitive resilience — the ability to maintain cognitive health and functioning.

The study used mice to show that tau causes the release of mitochondrial DNA in the brain. An enzyme called cGAS1 detects this stray DNA as a sign of damage and slams the emergency button, triggering a response similar to an antiviral reaction.

This leads to a decrease in MEF2C2, a protein crucial for neurons to maintain healthy communication and form new connections. In other words, the immune response damages our ability to learn and remember things, even before symptoms of Alzheimer's disease become apparent.

A previous study by MIT Professor Li-Huei Tsai's lab identified MEF2C as a key player in cognitive resilience. It was also known that microglia were involved in the development of Alzheimer's disease.

However, according to YiGe Huang, graduate student and co-first author of the recent paper, this study connected the two and established a "cross-talk between microglia and neurons".

This is a surprising find, as cGAS was typically considered a defense pathway and not thought to contribute to brain pathology. Cynthia Leifer, an immunology professor at Cornell University, who was not involved in the study, commented that it reveals "an exciting and potential important new role" for the cGAS pathway.

The research team believes that the findings point to a novel therapeutic target: the DNA sensor cGAS. When cGAS was inhibited or "knocked out" to completely block its function, the mice performed better on their learning and memory tests, coinciding with normal levels of MEF2C and other factors that affect cognitive ability.

What's unique and powerful about this approach is that it does not depend on the amount of tau protein in the brain, which is the focus of many pharmaceutical research endeavors.

Rather than attempting to decrease the amount of tau protein in the brain, Huang states that inhibiting cGAS "circumvents that pathway" and directly addresses the key concern: preserving neuronal function and memory.

Inhibiting cGAS, however, raises a concern that circles back to its primary function: to activate an immune response.

Huang notes that there is a possibility that if cGAS is prevented from detecting stray DNA, the brain might be more susceptible to infection. While a valid consideration, Huang notes that mice lacking this defense mechanism were healthy, which Leifer argues may be due to backup mechanisms that kick in to protect the host.

Even so, further investigation is necessary to confirm the findings of the study and translate it to human Alzheimer's disease. For Leifer, it will take a set of "detailed and robust mechanistic studies" to clearly connect that MEF2C is the primary cause of this immune-related cognitive decline.

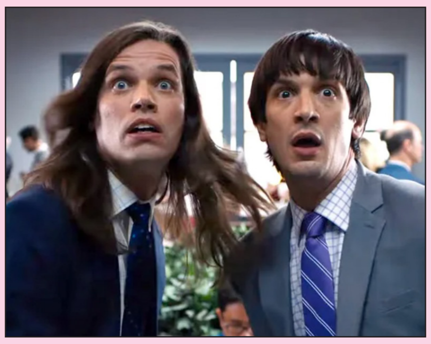
TECH's PICKS: ENTERTAINMENT THIS ISSUE

THURSDAY, OCTOBER 18 – WEDNESDAY, NOVEMBER 1

FILM

KILLERS OF THE FLOWER MOON (FRI, OCT 20)

DICKS: THE MUSICAL (FRI, OCT 20)



TV

UPLOAD (S3) (FRI, OCT 20)

EVERYONE ELSE BURNS (THU, OCT 26)

FILM

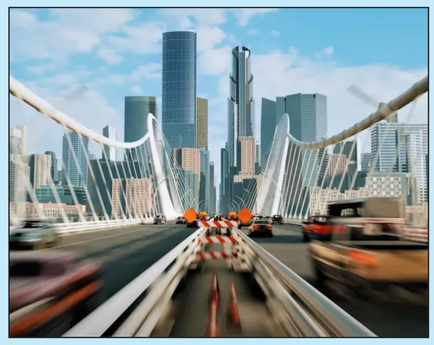
FIVE NIGHTS AT FREDDY'S (FRI, OCT 27)

FREELANCE (FRI, OCT 27)

VIDEO GAMES

ENDLESS DUNGEON (THU, OCT 19)

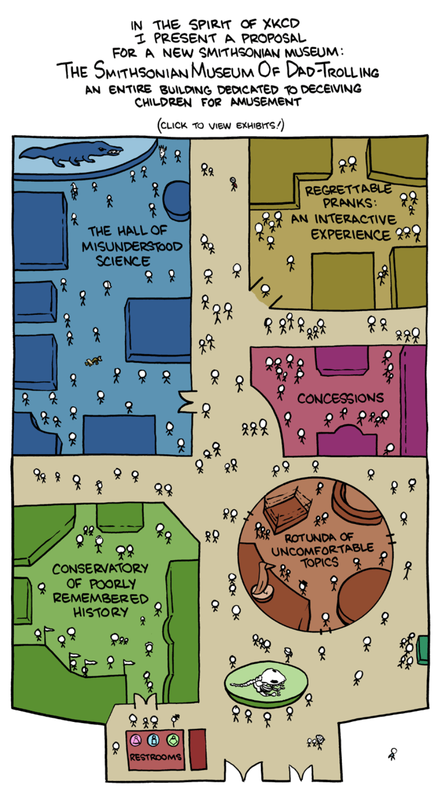
CITIES: SKYLINES II (TUE, OCT 24)



xkcd

A WEBCOMIC OF ROMANCE, SARCASM, MATH, AND LANGUAGE

by Randall Munroe



Guest comic by Zach Weiner of Saturday Morning Breakfast Cereal. When I was stressed out, Zach gave me a talk that was really encouraging and somehow involved nanobots.

Haikus

by Eunice Zhang

ALGORIZZMS

finding peaks this, that
only peaks i care about
are your mother's :C

sadge i didn't serve
now i'm rolling in the hrrg
gotta trust the curve

IKEA

in the holy land
tea candles, water colors
meatballs, furniture

group nappy on couch
swedish consumerism
could this be heaven?

DISSOCIATION

aka max hrrg
body-mind separation
things just don't feel real

that's ok though, slay
gotten through worse things before
in time, bing chilling

RILEY & RALEIGH

sloppy joe lentils
riley had four for dinner
daresay he liked it

sometimes, silly things
raleigh eating rice with hands
helps ease the hrrgy