

MIT Faculty Newsletter

<https://fnl.mit.edu>

in this issue we offer an article by former Massachusetts Secretary of Transportation and MIT Lecturer Fred Salvucci ([page 5](#)); Faculty Chair Mary Fuller's "The News You Get From Poems," ([page 6](#)); and a piece on the struggles of non-native English-speaking graduate students ([page 10](#)).



Building 14 Courtyard

The Hayden Library Renovation: Living Up to Its Promise

Chris Bourg

FIVE YEARS AGO, I shared in this newsletter our plans for the renovation of Hayden Library, citing the work of the Institute-wide Task Force on the Future of Libraries and its challenge to us "to use library space to best serve the evolving needs of our community." Now, after three academic years in the new Hayden, I'm pleased to share the many ways this project has been critical to the MIT community.

One of the defining elements of the renovation design is its flexibility. Hayden serves its primary function as a place of research and quiet study while also providing space for events and exhibits, a new campus dining option, and even a welcoming area for meditation and prayer. The Nexus, our teaching and event space, and the Building 14 Courtyard have become in-demand

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The Danger of Nuclear Weapons and Efforts at MIT to Reduce the Threats

Robert P. Redwine

THE DANGER OF THE use of nuclear weapons in conflicts between countries on Earth is difficult to overstate. There are currently nine countries (United States, Russia, China, United Kingdom, France, India, Pakistan, Israel, and North Korea) that are known to have nuclear weapons and at least one other country (Iran) that seems to be working toward obtaining such weapons. The United States and Russia have the most deployed weapons, about 4000 each, most with warheads many times more destructive than the bombs dropped on Hiroshima and Nagasaki. While this number is a factor of 3 to 4 less than it was during the Cold War, it still represents vast overkill capacity. Another fact to keep in mind is that most of the nuclear weapons in the world are on "hair-trigger alert," which means that they can be launched on the order of

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Editorial

I. Congratulations to Grads and Families! II. Resolution in Support of the FNL III. Revised Policies & Procedures; Editorial Board Election; Clarification

Congratulations to Grads and Families!

ALL OF YOU IN THE Class of 2024 started your college years in the midst of the worst pandemic of modern times, and have had to overcome unprecedented stresses on your path to graduation. We salute your resilience and commitment as you navigated around and through the daunting challenges and dilemmas of the pandemic years. The growth you have experienced has prepared you for continued learning, discovery, invention and creation, even in turbulent times. Your future contributions to your communities and to society will be among the most gratifying outcomes of our academic efforts together.

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Photo Credit: Pages 1, 8, and 9: John Horner; Page 15: (top three) Nasser Rabbat.

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Congratulations to Grads and Families!
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Teaching and mentoring students under these conditions has required development of new skills and practices, by both students and faculty. When successful, this has been a source of satisfaction – but we sincerely hope that adaption to pandemic stresses and limitations will not be a recurring normal.

The Class of 2024 will be entering a world of considerable uncertainty, and an increased level of social and political polarization. During the Trump administration, the values of scientific investigation and assessment, previously taken for granted, became arenas for contention and even denial – and the intensity of disagreement has only increased since. Defending these values will require the urgent involvement of us all.

Many of you participated in the 2020 US Presidential election as your first engagement with the electoral arena. Over the past four years, many of you became attentive to pervasive issues such as climate change, foreign wars, global poverty, challenges to fundamental democratic rights, and also the roles such issues play in population migrations.

Unfortunately, as the pandemic came under control with the development of effective vaccines, other large problems continued to emerge. Examples include the exacerbated dangers and manifestations of climate change, the pressures on women subsequent to the Supreme Court overturning *Roe vs. Wade*, as well as other expressions of social, economic, and political concerns.

The Russian invasion of Ukraine, with the accompanying destruction and death, the effects on world food and energy supplies, and the increased risk of the use of nuclear weapons, marred the local easing of threats from the pandemic. And following the Hamas attack on Israel and the subsequent outbreak of the war on Gaza, with its ongoing and spreading humanitarian horrors, the turmoil abroad has found echoes much closer to home (overshadowing news of the civil strife in Sudan and Haiti). You will thus have to take more seriously your responsibilities as citizens to ensure that our actions at home, and our nations' actions in the world, increase the prospects of peace and prosperity for everyone rather than undermining them.

We on the faculty have watched and supported the burgeoning of your many talents, your creative ambitions, your resilience in the face of setbacks, your thoughtful and quirky self-expression, and your creative and entrepreneurial energy. We hope that as your individual paths unfold you will put your powers to work on solving some of the problems that confront us all, and on making our society more responsibly productive and more supportive of those in need. On behalf of the entire Faculty, we wish the Class of 2024 and your families vision, strength, commitment and success in building rewarding lives for yourselves and addressing the unique challenges we will all face together.

**The Editorial Board
of the MIT Faculty Newsletter**

**Resolution in Support of the Faculty
Newsletter for April 2024 Faculty
Meeting**

– Whereas the MIT Faculty Newsletter (FNL) has published regularly since 1988, with more than 1,000 articles from faculty in 177 issues.

– And whereas this has significantly facilitated and enhanced independent communication and discussion among faculty.

– And whereas the Ad Hoc Committee on the Faculty Newsletter established by President Charles Vest concluded that the Board should remain autonomous from the Administration and from the faculty governance system; that there must be a mechanism to generate regular renewal in the Board's membership; that a typical term on the Board should be three or four years; and that the Board should be representative of the Faculty in all of the relevant dimensions.

– And whereas the Editorial Board of the Faculty Newsletter, composed of current and retired faculty, is now elected by electronic secret ballot accessible to all current and retired faculty.

Therefore, be it here resolved that:

The Faculty Newsletter continue to publish 5-6 issues/year, with digital versions on its website, and including:

– Reports from the Faculty Chair, Standing Committees, and Task Forces of the Faculty.

– Articles and letters from current and retired faculty relating to the professional lives and concerns of MIT faculty.

– Other articles and letters that the Editorial Board deems of value to the MIT faculty.

Be it further resolved that the officers of the FNL will report annually to the Institute faculty meeting on past activities and plans for the coming year.

Be it further resolved that the FNL will hold occasional open forums to permit active exchange of views in real time.

Respectfully submitted on this day Monday
April 8, 2024

Prof. Nazli Choucri
Prof. Sally Haslanger
Prof. Nasser Rabbat
Prof. Franz-Joseph Ulm
Prof. George Verghese

**Revised Policies & Procedures;
Editorial Board Election; Clarification**

• The *Faculty Newsletter* operates according to its Policies and Procedures published on the FNL website. These have been recently revised, and the **current version** is now posted.

• Beginning on [page 18](#), you will find the short biographies of candidates the FNL Nominations Committee has brought forward for this spring's election to the Editorial Board. Faculty and emeritus faculty should vote for up to four of the seven, by following the instructions in the email you will have received. This election is run completely electronically for the *Newsletter* by the Provost's Office of Institutional Research. We are sincerely grateful for their assistance, without which the election would not be possible.

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**Revised Policies & Procedures;
Editorial Board Election; Clarification**
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• In the last [FNL](#), David Etlin (an alum of MIT Philosophy) has a piece titled “Is Antisemitism One of MIT’s Values?”. In it he denounces the Women’s and Gender Studies Program for sponsoring a reading group on the book [They Called Me a Lioness: A Palestinian Girl’s Fight for Freedom](#) (Penguin 2023) by Ahed Tamimi and Dena Takuri. He claims, “. . . the MIT Women’s

The Danger of Nuclear Weapons and the Efforts at MIT to Reduce the Threats
Redwine, from page 1

one person, the leader of the country. Countries which operate on this principle include, of course, the United States.

Recent developments in the world, including especially the war in Ukraine and the conflict in the Middle East, have increased the danger of the use of nuclear weapons. Israeli weapons can reach Iran. North Korea continues to threaten use of their nuclear arsenal. India and Pakistan, both nuclear armed, are in conflict over their border. The threats by Russia to use tactical nuclear weapons in Ukraine (which are less powerful than strategic nuclear weapons but still very powerful) are especially disturbing.

The US has embarked on a program to upgrade and modernize all three legs of the nuclear response triad – intercontinental ballistic missiles in silos, nuclear-armed submarines, and nuclear-armed long-range bombers. Russian and Chinese military spokespersons state that this represents an escalation of the nuclear arms race, and that they will have to respond in kind. The upgrades are estimated to cost US taxpayers close to \$2 trillion over the next 20 years. Even if never used, the enormous cost of such weapons will sharply limit the investment in desperately needed federal programs for health, housing, education, biomedical research, public transit, and sustainable energy.

Professor Alan Robock’s climate modeling group at Rutgers University estimates that if up to about 50 current nuclear weapons were to be exploded anywhere on Earth, it would generate sufficient atmospheric soot to cut down sunlight reaching the Earth, resulting in a “nuclear winter” and cause worldwide famine. This would result in hundreds of millions of deaths. The *Bulletin of the Atomic Scientists* now has their “Doomsday

and Gender Studies Program announced a reading group on the writings of a Palestinian who has said, ‘we will slaughter you and you will say that what Hitler did to you was a joke, we will drink your blood and eat your skulls.’” (p.14) He links this comment to MIT Israel Alliance’s ppt slides about proof of antisemitism at MIT.

This allegation provides no evidence of antisemitism at MIT. It is highly questionable whether those antisemitic words were Tamimi’s. [In the days leading up to her arrest for inciting](#)

“Clock” set at 90 seconds before midnight, the closest to midnight it has ever been.

Since the initial development of nuclear weapons in the 1940s, there have been several treaties implemented that have encouraged countries to limit development of nuclear weapons, end testing that is dangerous in many ways, and work towards the total elimination of such weapons. One can argue that these treaties have had important successful outcomes. However, it is also true that the successes have been limited. For example, most recently the Treaty on the Prohibition of Nuclear Weapons (TPNW) was ratified by the United Nations in 2017 and signed by 122 countries. Many other countries have since also signed the TPNW. However, none of the nine countries that have nuclear weapons have signed the TPNW.

MIT has played and continues to play an important role in dealing with the issues described above. Several MIT scientists were members of the Manhattan Project that developed nuclear weapons for the US during World War II. The motivation of most of the leaders of the Manhattan Project was their fear that Hitler and the Nazis would develop such weapons before the Allies. When Germany surrendered in May 1945 these leaders wanted the Manhattan Project to end and they were very disappointed that it continued and that the US dropped two nuclear bombs on Japan. After the war many of the former leaders of the Manhattan Project, including MIT faculty members, spent much of the rest of their lives working towards limiting the number of nuclear weapons and hopefully the abolition of all nuclear weapons.

For example, MIT’s Henry Kendall was a founder of the Union of Concerned Scientists which, among its goals, aims to reduce as much as possible the dangers of nuclear weapons. Randall Forsberg, Philip Morrison, and Kosta Tsipis initi-

[violence, her social media accounts were hacked as a way to discredit her.](#) (She has since [been released.](#)) Nothing of this kind of antisemitism was included in the book that the students read. If anything, the book urges anti-violent resistance. Moreover, the opportunity to read, discuss, and critique controversial texts is not only essential to academic freedom, but also to developing skills of critical thinking. ■

ated the Nuclear Weapons Freeze Campaign, which brought a million people to Central Park in 1982, and pushed President Reagan to open negotiations with President Gorbachev, leading to the Strategic Arms Reduction Treaties.

While those who participated in the Manhattan Project are no longer with us, they had strong influences on other faculty members at MIT, who have continued to pursue the goal of the abolition of nuclear weapons. For example, MIT faculty have led the [Nuclear Weapons Education Project](#) (NWEPE) for decades. The NWEPE has as its goal the education of as many people as possible, especially younger people who did not grow up during the Cold War, about the continuing and ever increasing dangers of nuclear weapons. To achieve this goal the NWEPE makes available online a very large amount of material related to the technology, history, and prospects of nuclear weapons in the hope that many educators will use this material to familiarize younger people with this existential threat.

Another example of MIT contributions is the co-sponsorship of the annual “[Reducing the Threat of Nuclear War](#)” conference, which attracts a very significant number of attendees from across the country. The *Faculty Newsletter* also maintains a [Nuclear Disarmament Page](#) honoring our former colleague Aron Bernstein’s contributions.

To summarize, the goal of reducing and hopefully eventually eliminating the threat of nuclear weapons is a critical effort and MIT has for a long time played an important role in working towards this goal. We encourage other members of the faculty to engage in these activities and we would be happy to provide more information if requested concerning how to do so. ■

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New Transportation Connectivity Has Roots at MIT

Frederick P. Salvucci

THE \$2 BILLION ALLSTON Multimodal Project has just received a \$335 million federal grant for connecting communities, giving the project new momentum and increased credibility.

The key innovative conceptual element of the Allston Multimodal Project was contributed by an urban designer named Antonio DiMambro, who received his degree at MIT, and has taught in the Department of Urban Studies and Planning (DUSP). As an MIT student, Antonio proposed a new multimodal rail station called “West Station” in Allston, where rail passengers from the western suburbs and Central and Western Mass can transfer onto a frequent rail shuttle via the Grand Junction rail link to Kendall and North Station, greatly improving the accessibility of Kendall/MIT to and from the west, and establishing a new synergy with a new development node in Allston, and an evolving Worcester economy.

This new node in Allston, achieved by relocating the obsolete CSX rail freight terminal from Allston to Worcester, straightening and flattening the turnpike now freed from the old manual toll collection plaza with its tight curvature, introducing West Station, and building adjacent to and on the air-rights over the transportation infrastructure, will be on the scale of a new Prudential Center, which was itself redeveloped from the former Back Bay rail yard and on air-rights over I-90. Like the Prudential’s repurposing of the Back Bay rail yard, the Allston Multimodal Project proposes to enhance the accessibility of the land through transportation improvements and improved community connectivity, reducing the physical separation created by rail and highway infrastructure. The improved connectivity between Kendall-MIT and Allston-West Station, and Worcester, enhances the economic agglomeration benefits of all three urban sites, and establishes the potential for synergy and collaboration, including cross university research collaboration between MIT, Harvard University, Boston University, and the UMass Medical Center at Worcester, – all key elements in Antonio’s visionary proposal.

Of course, MIT has been the beneficiary of fortuitous transportation investments since its relocation from Back Bay to Cambridge in the early 1900s. As it became clear that MIT was out-

growing its limited space in Boston’s Back Bay, significant consideration was given to a proposal by MIT Professor and then Harvard President Charles Eliot for MIT to become the Harvard’s science and engineering school, ironically on land in Allston purchased by Andrew Carnegie. This proposal was decisively blocked by near universal rejection by MIT faculty, concerned with the loss of independence and the commitments made by MIT when it became a beneficiary of Abraham Lincoln’s land grant college plan. Instead, in 1912, almost exactly coincident with the opening of Red Line service, and shortly after the construction of the Massachusetts Avenue bridge over the Charles River connecting the Cambridge campus site to Boston, MIT retained its independence and moved to its current location in Cambridge.

MIT’s northern boundary was the Grand Junction rail line which provided vital links between rail freight services from Worcester and Framingham to industrial activities in Kendall Square, destinations at the Charlestown rail yards and seaport, Everett and Chelsea industries, and the East Boston seaport facilities. I have a fond memory of the circus train stopping on the Grand Junction line at Massachusetts Avenue so that the elephants could parade past MIT to the Boston Garden at North Station. Ironically, during the construction of the Big Dig, the most unique property acquisition was acquiring the Analex Building, including the elephant ramp and bridge to allow the elephants to climb up and cross over Accalton Way to enter the upper floor Boston Garden arena.

But as the Boston area economy shifted from manufacturing and heavy goods transport to knowledge industries, rail transportation priorities have shifted from carrying freight to transporting people to job opportunities based upon the value of face-to-face communication in high density urban clusters. So MassDOT’s transportation policy has been investing in a transformation from emphasis on rail freight to traditional commuter rail services, which focus on providing relatively expensive peak hour service, to a regional rail concept, with more frequent all day and all week service with affordable fares, to improve connectivity. This transformation has been going on for over a half century,

beginning with public acquisition of private railroads during the administrations of Governors Volpe, Sargent, and Dukakis. Enabling activities continued during the administrations of Governors Patrick and Baker, when key parts of the Worcester branch and the Grand Junction Rail systems were purchased by the MBTA, and a collaborative effort between the city of Worcester, MassDOT, Harvard, and CSX railroad succeeded in relocating the Allston freight yard to Worcester and Massdot agreed to introduce Antonio’s original idea of West Station. The conceptual adoption of the plan to transform commuter rail to regional rail by the MBTA furthered this vision during the Baker administration. Recent progress under Governor Healey has seen the successful receipt of federal funding to upgrade Worcester branch West East rail from Springfield to Worcester to Boston; acquisition of Widett Circle near South Station for expanded passenger rail layover and maintenance capacity; and the successful pursuit of the \$335 million federal Reconnecting Communities and Neighborhoods grant for the Allston Multimodal Project from the Biden administration, a joint application with Boston Mayor Wu’s administration, and strong support from the entire congressional delegation.

There remain many steps to completing this transformation, including securing additional funding to upgrade the 90-year-old Grand Junction bridge over the Charles River for reliable 2-track rail service from West Station to Kendall Square to North Station, along with pedestrian and bicycle paths included to link the Cambridge and Boston esplanades and bicycle connections being supported by the Cambridge residents and city administration. The economic development opportunities around West Station are not feasible until the completion of a decade of construction to redevelop the turnpike and rail infrastructure. But the MIT community is situated to be a major beneficiary of Antonio DiMambro’s visionary plans throughout the next century. ■

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From The Faculty Chair The News You Get From Poems

Mary C. Fuller

MANY THINGS ARE UP in the air this week, and the *Newsletter's* mode of static publication at a set, future time seems especially ill-suited to current conditions. I certainly feel the need, as I know others do, for a more flexible, better attuned means of communication. That isn't a reason not to use the ones we have, or to replace reflection with breathless news scrolls, but in the circumstances of late April and early May anything I write about campus may be out of date by tomorrow, let alone two weeks from now.

I'd hoped in this column to write about some of the things faculty have told us were on their minds this year: themes that have come up at random faculty gatherings, drop-in breakfasts and coffees; these have been important conversations. Yet I can't do it, even with the extended deadline courteously given us. Dealing with student protests – talking with students, talking with faculty, and talking with senior leaders, on text, on email, on the phone, on Zoom, and in person – has taken up most of the available free time for more than a week now, to the exclusion of much else. It's worth spending that time on a problem-set so crucial to MIT as institution and community, but of course that comes at a cost and having the bandwidth to write a reflective end-of-year synthesis is a small part of that cost.

What can be offered instead of that summing up? Well, as I watched the protests and counter-protests unfold last Friday, I was also preparing for a class by reading the *Divine Comedy*. As colleagues passed by, many of them stopped for some conversation, and some of those conversations were about Dante: the influence of

Arabic poetry and learning on a Florentine poet circa 1300, but also the profound timeliness of this very otherworldly medieval poem. Even without having read Dante, you may know the

Well, as I watched the protests and counter-protests unfold last Friday, I was also preparing for a class by reading the *Divine Comedy*. As colleagues passed by, many of them stopped for some conversation, and some of those conversations were about Dante: the influence of Arabic poetry and learning on a Florentine poet circa 1300, but also the profound timeliness of this very otherworldly medieval poem.

basic outline of the work: in the middle of his life, the speaker of the poem finds himself astray from his path and lost in a dark and trackless wood. He is rescued by the long-dead poet Virgil, who has been sent by a girl Dante once loved – now a powerful force in heaven – to lead him through all the parts of the afterlife as Christians then conceived of it so that he can right his course again. How does this poem land for a reader on campus in early May, 2024?

The *Divine Comedy* is a deeply religious poem, which is to say that, in addition to expressing his faith in beautiful and powerful form, Dante holds quite a firm line on who does and doesn't get into Heaven. Virgil, much as he admires him, does not – a fact that Dante makes increasingly poignant as they climb the mountain of Purgatory, and the moment approaches when Dante will prepare to enter Heaven itself, while Virgil will lose

the sight of the Sun and be consigned again to Hell. Dante would include many of us out, and that's an unavoidable truth. You could certainly say the poem has sectarian commitments that, over the course

of history, have given rise to terrible as well as admirable things. Like most of the texts I and my colleagues teach, the *Divine Comedy* cannot be disimbricated from painful controversy (and it is not without challenges for Christian readers). But it's actually less the religious commitments than the historical and political surrounds of the poet's life that have been on my mind.

Dante wrote his poem in exile. Why? Because his place of birth, the republic of Florence, had been mired in a cycle of internecine violence for generations. Florence's wars with neighboring city-states were actually wars between *immediate* neighbors, as Florentines expelled from their home after factional conflict returned armed and with allies to slaughter and expel their neighbors in turn, razing their homes. The reasons for faction are recoverable, but have little res-

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The News You Get From Poems

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onance for a modern mind. What remains vivid, though, is the sense of a city and a region where “those now living in you are forever at war, and those whom one wall and one moat enclose are gnawing on each other.”¹

For the most part, Dante doesn't use his poem to settle scores. Great leaders on the other side, even in Hell, merit his respect, and they adjoin leaders on his own side who may indeed be lower down; once he arrives among the saved, factions and battles are no longer of interest to anyone. But the *fact* of a violence that seemingly can't be ended, of a structural failure that consumes generations, provides one of the ground conditions of the poem as well as many of the characters the poet encounters. In one of Hell's lowest circles, people are punished who have created division between those who should rightly be in community with each other; the punishment for these people is to have their (virtual but suffering) bodies violently divided by wounds. There, the man Dante holds responsible for the catastrophic turn in Florentine history holds up the stumps of his severed hands, which bleed on his face as he keens to be remembered – and *not* remembered, in his infamy and anguish. It's easy to get carried away by the sublime horror of Dante's Hell, as a hair-raising aesthetic experience (and maybe this was a little too much

information). But if Dante goes a bit far in the way he imagines punishing Mosca dei Lamberti, it was surely because he felt both powerless and appalled by the things he blamed Mosca for, generations later. He knew from conflict, this 13th century poet, between peoples and also within communities.

The first 34 cantos of the *Divine Comedy* take place in the dark, because Hell is in the center of the earth. As my syllabus usually works out, the characters emerge back into the light just around spring break, and by the last day of class, Dante is poised to be drawn into the heavens from the top of a mountain on the other side of the earth. He spends the last few cantos of *Purgatorio* (the middle section of the poem) in a return to the original earthly paradise, where he will be reunited with the lost love of his younger days. As he has climbed the mountain of Purgatory on his way there, he has largely been an observer of the ways in which souls make restitution for the wrong things they did in life. Reparative justice, for Dante, looks exactly like more punishment – but luckily for him, he is only passing through and will have the chance to change his life *before* it's time for him, too, to be crushed under huge boulders (pride) or have his eyes sewn shut with wires (envy). At first, the climb itself is tough, but the closer he gets to the top, the lighter he feels, until climbing is as effortless as floating downstream. The garden of Eden itself is only just ahead. But. But. It turns out there *is* a price Dante has to pay after all.

The least grave sin in Dante's schema is loving wrongly, which is to say, getting distracted from those higher loves that in his universe should be the real object of desire. So the last terrace of Purgatory deals with love that still needs to be corrected. People on this terrace speak to Dante out of the fire they're being burned

in, and then plunge back into the fire “like a fish going into the deepest water” because *this* fire is in fact remaking and not only torturing them.² But the torture is real, and of course Dante still has a physical body, so imagine what he feels when the angel at the next passage tells him there is no going further without going *through* the fire. And he has to do it. There is no way back, and no way up other than through.

This is actually a beautiful passage in a beautiful pair of cantos; there are some famous poets there in the flames, people whose work has had a formative influence on Dante and of course their speech is correspondingly very powerful. The point, though, is that sometimes you find yourself in a crucible. It's hot: Dante writes, “I would have thrown myself into boiling glass to be cooler, the burning there was so beyond measure.”³ But Dante's fire is making something of him even as it scorches him. Virgil talks him through it, reminding him what's on the other side. He hears voices on the other side singing. And then finally he's through.

We're a bit in the fire now. I don't know when we'll get to the other side, or whether we'll come out having truly found Paradise – or somewhere else. W.H. Auden said something wonderful (if you're a literary type) about the profound importance of the news we get from poems. This column won't and indeed can't tell you the news of what happened in the first weeks of May at MIT. But Dante's poem reminds me that other people have been here before us, and that there is an other side to enduring the fire. ■

Mary C. Fuller is a Professor of Literature and Chair of the Faculty (mcfuller@mit.edu).

² *Purgatorio* 28.135.

³ *Purgatorio* 28.49-51

¹ *Purgatorio*, tr. W.S. Merwin (New York: Knopf, 2000), 6.82-84. For readers who have traveled with Dante through the icy bottom of Hell, the language of citizens “gnawing on each other” recalls the terrible punishment visited on a man and his children by a fellow citizen in *Inferno*, and a fitting revenge meted out by the victim on his punisher in the after-life where they suffer next to each other forever. If you are a fan of horror, read *Inferno* 33.

**The Hayden Library Renovation:
Living Up to Its Promise**
Bourg, from page 1

campus venues. We have hosted MIT groups ranging from the Office of the Vice Chancellor to the Korean Graduate Student Association to Music and Theater Arts, presented marquee speaker events, and partnered with MIT faculty and departments on timely panel discussions.

Like the renovation design concept by Kennedy & Violich Architecture,

“Research Crossroads,” the MIT Libraries center the Institute’s mission of research and learning. Today, that means striking a balance between equitable digital access to content and an essential core of physical collections, services, and spaces whose value cannot be meaningfully replicated online. Our work this summer to upgrade Hayden’s compact shelving in the book stacks continues this commitment, ensuring the long-term accessibility of print collections

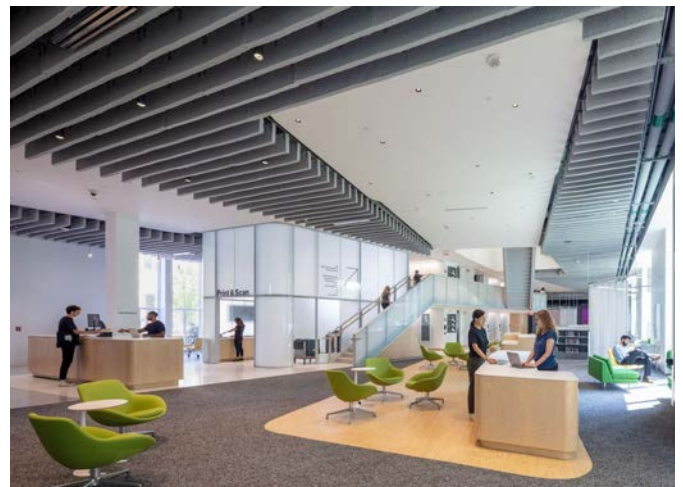
that are so important to many in the MIT community.

Of all the gratifying aspects of the new Hayden Library and Building 14 Courtyard, I’m perhaps most excited about how they have opened up new possibilities for collaborations across the Institute. I’d welcome hearing from you about ways we might partner together. ■

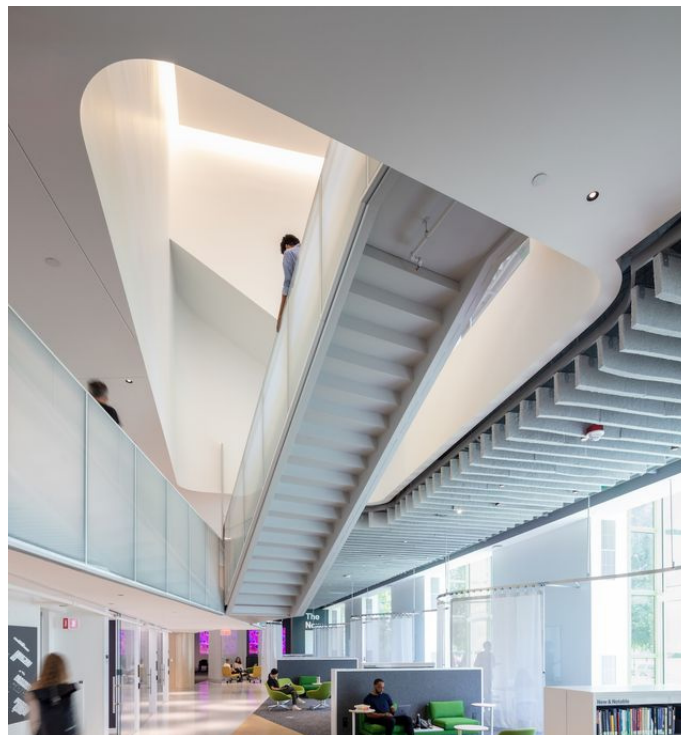
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Entrance



First Floor



Staircase

**The Hayden Library Renovation:
Living Up to Its Promise**
Bourg, from preceding page

The renovation design by Kennedy & Violich Architecture was featured in Architectural Record and has won an ALA/IIDA Library Interior Design Award, a Boston Society of Architecture Design Award, and an Architecture MasterPrize honorable mention for restoration and renovation.

One of the most notable transformations in Hayden is the amount of 24-hour study space available to the community.

Prior to the renovation, there were 16 seats available 24/7. The redesign expanded it to include all of floors 1 and 1M, more than 200 seats, and this spring, the second floor was added for another increase of 125 seats.

The renovation design prioritized natural light, sustainability, and the comfort of the community, with LEED Gold and Fitwel certification, all-gender restrooms, and “Red List Free” materials for interior finish materials and fabrics.

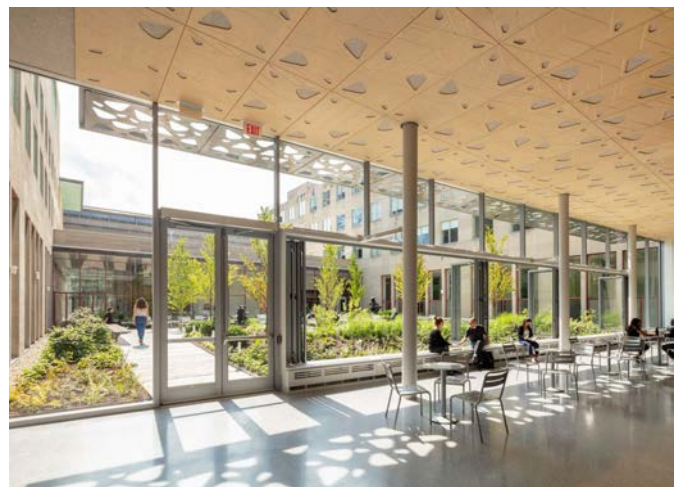
With its artful landscaping, maturing Katsura trees, and plentiful seating,

the courtyard provides a peaceful space for lunch, catching up with a friend, or just enjoying a quiet moment alone. It is heavily used throughout the year, in all but the most forbidding weather conditions.

Since opening in 2021, the Nexus and the courtyard have hosted more than 200 events. These have included noted speakers like Tressie McMillan Cottom and Richard Ovenden of the Bodleian Library at Oxford, community events such as the MIT (Mysterious) Book Exchange, and the MIT Prize for Open Data.



Cafe



Porch



Courtyard at Dusk



Courtyard at Night

Non-Native English-Speaking Graduate Students Still Face Significant Disadvantages

Eric Grunwald

ALMOST HALF OF MIT graduate students arrive from outside the United States and immediately enter a communication-intensive culture here in which they must understand lectures, read voluminous amounts of material, speak (and comprehend) in class and lab meetings, write papers and lab reports, and begin applying for internships and jobs. They then move toward writing proposals, a thesis, and journal articles and presenting at conferences and being teaching assistants, among other tasks. And although in many ways and from many places, students arrive with higher skills in English today than previously, many students – even those who have graduated from English-instruction undergraduate institutions – still have significant gaps in their linguistic skills and cultural knowledge about communication that impact their ability to participate fully and succeed at MIT and beyond.

This situation is reflected not only in the results of the annual English Evaluation Test (EET) – established in 1983 at the behest of faculty – but also in the results of the 2023 MIT Graduate Communication Survey as well as a recent meta-study (Amano, et. al. 2023) showing that non-native English speakers (NNEs) still face significant disadvantages in conducting and communicating their research compared to their native-English-speaking counterparts (NESs).

As director of MIT’s English Language Studies (ELS) group, I write to alert you to this ongoing need, and in the hopes of opening a broader dialogue on the subject. For now, though, I urge faculty and the administration to work to:

- 1) Help NNEs students understand the importance to their success at MIT and beyond of improving their communication skills in English,
- 2) Help NNEs students understand what is really involved – time, engagement, feedback, and practice/revision – in achieving that improvement, and
- 3) Try to make it easier and more desirable for students to do that by affording them time and space to take the ELS classes recommended to them on the basis of the English Evaluation Test.

In a paper published last year, Amano, et. al. found that it takes early-career NNEs almost 50% longer than native English speakers (NESs) to read a journal paper and 50% longer to write one as well.

Given the number of papers that students must read, that first discrepancy cumulatively represents enormous amounts of extra time and effort. And while MIT students are not immediately writing papers for publication, the finding suggests the greater difficulty in writing for NNEs generally. And these discrepancies stretch beyond the reading and writing processes to affect students’ wallets as well as others’ time: NNEs, Amano found, generally ask others to edit their work more often as a favor and also pay professionals more often to edit – not a negligible expense. Worse is that NNEs researchers face *rejection of submitted papers for the quality of the writing in English three times as often* as do native speakers (Figure 1).

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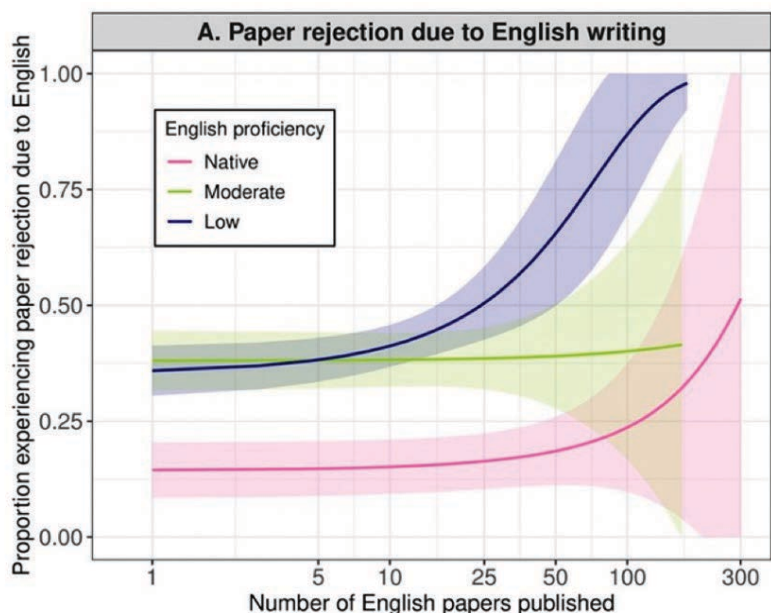


Figure 1. Percentage of researchers having papers rejected due to the quality of the writing in English (Amano, T., et. al. (2023), p. 3)

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times as many NNEs (13%) rate their academic writing skills as “weak” or “very weak” as do native speakers (4.5%), while

fifth of NNEs rate their oral academic communication skills as “weak” or “very weak,” compared to only 6% for NESs.

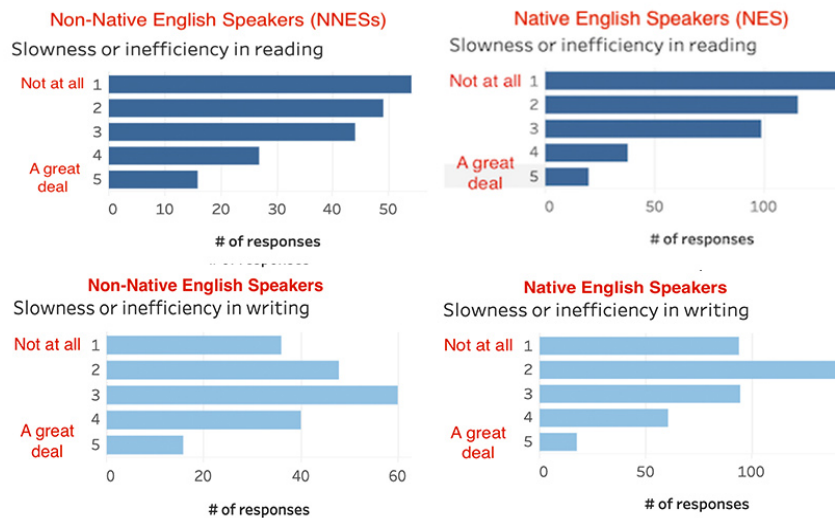


Figure 2: MIT graduate students' responses to the question of how much slowness or inefficiency in reading and writing has affected their performance. (Source: 2023 MIT Graduate Communication Survey)

Students' responses to the 2023 MIT Graduate Communication Survey – which I conducted last year with Dr. Elena Kallestinova, director of MIT's Writing and Communication Center – echo these discrepancies. Of the over 7,200 graduate students sent the survey, almost 14% (996) responded, and NNEs reporting much greater difficulty in, first of all, reading and writing than their NES counterparts (Figure 2). For example, almost a quarter (23%) report a significant impact (rating of 4 or 5) of slowness or inefficiency in reading on their performance at MIT. Adding in responses of tangible impact (a rating of 3), almost half (46%) of NNEs report their performance being affected, compared to only 38% of NESs.

With writing, almost 30% of NNEs report a significant impact of slowness or inefficiency in writing on their overall performance, whereas 20% of NESs report this. Again adding in ratings of 3, almost 60% of NNEs report a tangible impact, compared to 46% for NESs.

Students' assessments of their own skills help explain these results. Three

at the other end of the scale, less than half of NNEs (49%) rate their writing skills as “strong” or “very strong,” compared to three-fourths of native speakers (75%).

And while students' perceptions of their own skill levels can either be too low or too high, these perceptions have their own significant impacts. When students were asked how much anxiety about their communication skills impacted their performance at MIT, similar gaps arise. In academic writing, one-fifth of non-native English speakers say that *anxiety about their skills* has significantly impacted their performance, and adding in tangible impact (a rating of 3 out of 5), the number rises to almost half (46%). Compare those numbers to 12% and 36%, respectively, for native speakers.

The discrepancies for oral communication are even starker. Almost a third (31%) of NNEs say that anxiety about their oral academic skills has significantly impacted their performance, and including tangible impact (3 out of 5), that percentage reaches 55%. The analogous figures for native speakers are 19.5% and 44%, respectively. Similarly, a full one-

While we did not ask as much about what those impacts were, Amano, et. al.'s findings suggest some possible answers. They found that almost *one-third of early-career NNEs always or often declined to attend conferences due to language barriers* (pp. 6-7), and almost half always or often choose not to give oral presentations due to such barriers. And when they do present, it takes them *almost twice as long* (93% more time) to prepare as it does their NES colleagues.

Comprehending spoken English at MIT is also as great a problem for many NNEs as speaking. As can be seen in Figure 3 ([next page](#)), NNEs (yellow) face much greater difficulty than NES students in understanding native speakers speaking at a normal pace and using idiomatic language (which most of us do much more than we might realize). Indeed, these results echo comments by several first-year students in ELS's intermediate listening, speaking, and pronunciation course that they understand perhaps 60% of their lectures their first year.

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arrive with adequate skills in some areas but not in others. My colleagues in

Of course, while the Institute mandates the test for international students, it leaves

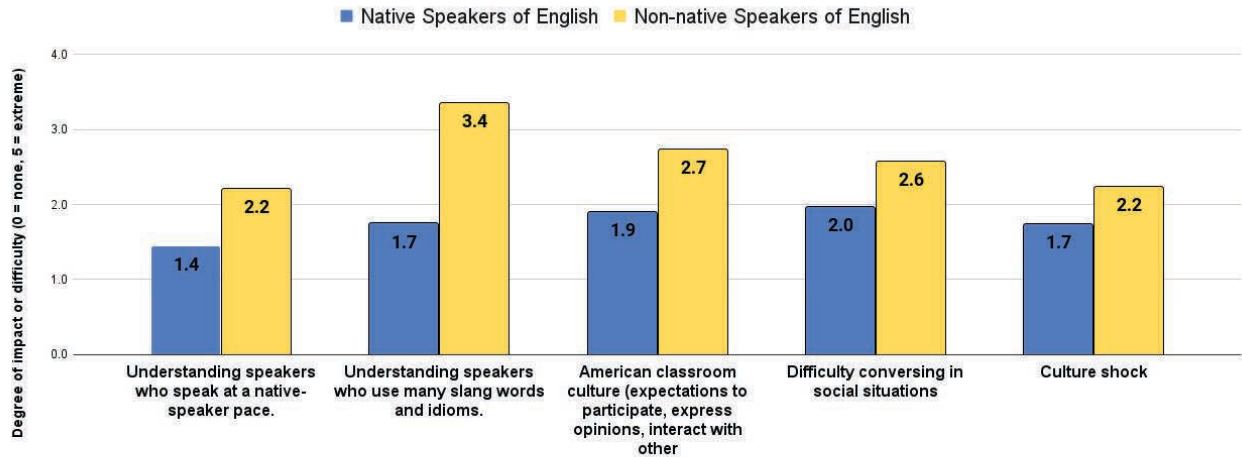


Figure 3. How much have the following impacted your performance or given you difficulty at MIT?

Finally, cultural issues pose great, unique challenges to NNEs. As Figure 3 also shows, understanding and adapting to American classroom culture, in which much more interaction and engagement is expected than in many other cultures, is also a challenge. Moreover, significant differences exist in the norms and expectations in communication such as the structure of documents and talks (e.g., placement of key messages), lexical register (properly formal or informal vocabulary), and even how to engage in small talk at conferences, which serves important professional and social purposes.

What Can Be Done at MIT?

The English Evaluation Test (EET) was created to address such issues at the behest of faculty who were frustrated that many NNEs students could not write sufficiently clear theses (which advisors then often had to – and still often have to – edit significantly) or could not participate sufficiently well in lab meetings. Although NNEs students take a standardized test such as the TOEFL or IELTS for admission to MIT, such tests have been shown not to be reliable indicators of academic readiness. Moreover, since those test scores are composites of separate scores for the four “core” skills, students may

English Language Studies and I thus administer the EET, a four-part instrument tailored for MIT students, in August and again (on a much smaller scale) in January and provide not only scores on various skills but corresponding recommendations for ELS credit-bearing subjects that address these skill gaps.

Only a small percentage of students end up taking those classes, however. For example, this academic year, 298 students took the EET, and about 25% of those, or 72 students were recommended for a high-intermediate class, which is designed to be taken during students’ first year. Such a recommendation comes out of scores in the “Limited” range, meaning that the student will face significant difficulties completing regular academic communicative tasks that year. Seventeen students, or less than a quarter of those recommended, took those classes this year.

Recommendations for our advanced classes numbered even more (~120) – classes that focus on writing or speaking in particular contexts such as a thesis or conference presentation and that are thus designed for students’ second year or beyond, when they can use their research work for the assignments in our classes – but are fulfilled at an even lower rate.

the decisions – in the spirit of decentralization and departmental agency – of what to do with those recommendations to departments, advisors, and students. Some departments require students to fulfill those requirements, but most do not. So why do students not take the classes that the Institute tells them are necessary for them to be able to succeed fully here? While I am still coming to understand the many forces and factors at work here, I have come in my 12 years at MIT to believe that most students do not understand how important communication skills are going to be to them even in a STEM subject, or if they do, they feel too much pressure to focus on their disciplinary classes and their research. In short, without departmental and faculty encouragement or requirement, many will not find the time or impetus to take these subjects.

Moreover, while undergraduate enrollments in ELS classes have rebounded to pre-pandemic levels, graduate enrollments for some reason have not. Many students do want to take these classes, however, and in the MIT Graduate Student Survey, 93 NNEs out of 225 said a class had been recommended for them. Just under a quarter had taken those classes, and another 15% said they

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Non-Native English-Speaking Graduate Students Still Face Disadvantages

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planned to take one. Of those who had not taken a class, several said that improving those skills was not as important to them as their other academic priorities, while others said that the classes conflicted with their other academic or research work.

However, as Figure 4 shows, many are interested and say they would be more likely to take an ELS class if their departments and faculty helped them fit the courses into their schedules or if their departments promoted the classes more to them.

Departmental and faculty encouragement is also necessary because, due to cultural factors, the very people who need such support are the very ones who are less likely to do so. In our survey, 45% of NNEs said that “feeling shy about seeking out communication support” has tangibly affected their performance at MIT, compared to less than 30% for native speakers.

I do not pretend to understand all the factors that go into determining students’ curricula, and of course students need to be in the lab to do research. One idea might be to allow ELS classes to count as elective credits toward graduation, which apparently not all departments do. Another would be to encourage students to use their elective credits to take an ELS class rather than, say, an “extra” math class that may not be crucial for that student’s work.

It can be easy to underestimate how much a second-language student has to adjust on a daily basis to communicate clearly. And tangible improvement in language and communication skills requires dedicated attention (i.e., over the course of a semester), practice, detailed feedback, and revision. One cannot “phone it in,” absorb skills by sitting in occasionally, or

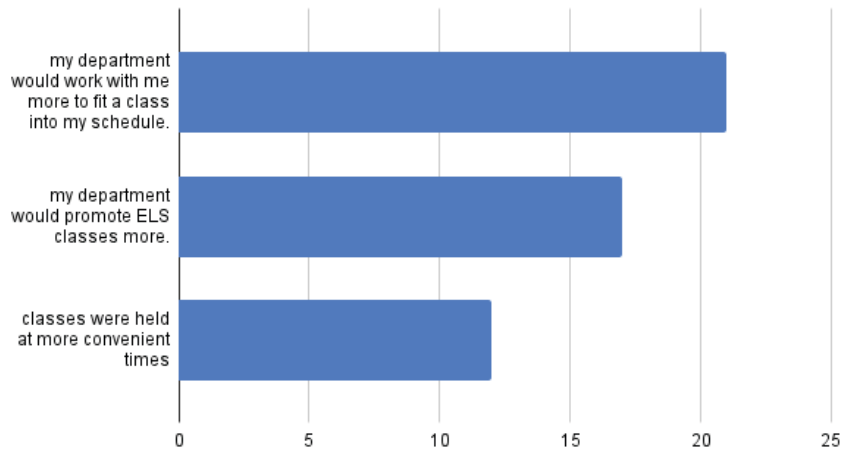


Fig. 4: Number of students saying they would more likely take an ELS class if...

improve skills tangibly with self-study (which inevitably falls by the wayside). Ultimately, though, it seems to me that granting a student admission implies to them that either they are already equipped to do all the work asked of them or else will be given the tools to do so once they get here. If once they are here, though, we tell students that they are not quite prepared but then do not afford them the time and space to utilize the resources available to them to become so, then we are, if not setting them up for failure or at least significant difficulty, depriving them of the chance to compete on a fair playing field. We are also ultimately depriving the rest of the Institute of the full range of the intelligence and creativity that these students have to offer.

I had the chance in October to ask President Kornbluth how important she thought linguistic and communication skills are for students, and she said: “When you’re competing in the job market as an MIT student or new graduate, potential employers will almost take for granted your technical and scientific qualifications. But they’re also looking for people who can express complex ideas in compelling ways and work effectively with everyone from co-workers to investors. In

other words, to develop your own potential, learning to write and speak clearly and professionally is just as important as any technical skill.” I thus invite the Institute and faculty to explore ways to afford non-native-English-speaking graduate students the time and space to equip themselves communicatively and linguistically to tackle all the challenges and opportunities that MIT lays before them.

I also invite you to explore the full results of the Survey at <https://cmsw.mit.edu/communication-survey-2023/>. And I invite anyone and everyone to reach out to me to discuss further how we in ELS can aid in these endeavors.

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Eric Grunwald is Director, English Studies Language Program (egrunwal@mit.edu).

Statement by MIT Faculty in Support of the Student Encampment on Kresge Lawn

Alliance of Concerned Faculty at MIT

As the [Alliance of Concerned Faculty at MIT](#) we support and affirm our students' right to peaceful political expression and support their rights to free speech. We thus express our support for the students currently staging a peaceful and multi-faith encampment on Kresge Lawn. We invite all MIT teaching faculty – professors, lecturers, instructors and visiting professors – to join us: hello-acf@mit.edu.

The present actions should be recognized in their international context with [increasing alarms](#) raised by international organizations ranging from Amnesty International to the [International Court of Justice](#) and the [World Health Organization](#). A grave humanitarian crisis is unfolding with the annihilation of the entire healthcare, scholastic, and academic infrastructure in Palestine, [leveling all 12 institutions of higher education in Gaza](#) – killing [95 university professors](#), 756 teachers, and leaving 608,000 students without access to education. It behooves us, as educators, to acknowledge and condemn the long-term serious damage inflicted on students, fellow educators, and knowledge production in general.

Across US campuses, students, staff, and faculty have been suspended, fired, doxxed, threatened, and harassed for expressing their academic freedom and free speech rights in support of those in distress.

We stand against the repression of any member of our academic community for exercising their right to free speech and expression of solidarity in the face of human suffering and war. As a result, we support the students' right to oppose university investments in firms that provide material support to ongoing wars.

We remind the administration that engaging police to dismantle peaceful protests can prove profoundly destructive to the students, our campus climate, and to the Institute's reputation. *This moment is an opportunity for MIT to take a leadership role in defending freedom of speech and academic freedom, and we call upon our administration to engage in constructive efforts to respond to those who are peacefully expressing moral distress in the face of an ethical and humanitarian crisis and in support for life.*

We **affirm** MIT student groups who demand that MIT protect Palestinian students and their allies from discrimination, defend their rights to free speech and free expression on campus, and provide a safe environment without exceptions. Such peaceful expression of moral and political concerns in academic settings is a part of a long tradition in which young people find their voice to participate in democracy, and their voices should not be chilled or silenced by threats of arrest or disciplinary proceedings.

We **reject** bad faith attempts to paint the student encampment as antisemitic or to defame the students as “pro-Hamas”. The student coalition includes many Jewish students and the celebration of a Passover Seder, to which the [MIT community was invited](#).

We **reject** irresponsible media coverage that relies on a single source for “the Jewish perspective” at MIT and fails to recognize that our Jewish community is diverse, multivocal, and has many views on the current situation. We encourage media to uphold their values of fairness and balance by publishing interviews with the [MIT Jews for Ceasefire](#) (mitjews4ceasefire@gmail.com).

We **understand** that trying to make the world a better place for all, is hard, takes patience and time and often looks messier than most might be comfortable with. But we also know that MIT, perhaps unlike any other university in the world, knows how to navigate and use a maker space to its fullest potential.

We **call on all faculty** – whatever your political views – to stand up for students' staff's and faculty's rights to free speech and political self-expression by making their presence and solidarity known and felt. We invite all MIT teaching faculty – professors, lecturers, instructors and visiting professors – to join [the Alliance of Concerned Faculty](#). Get in touch at hello-acf@mit.edu.



From The FNL Archives Improving Our System of Faculty Governance

Rafael L. Bras

Rafael L. Bras was chair of the MIT faculty from 2003-2005. Following is a reprint of his "From The Faculty Chair" column from the February/March 2004 issue of the MIT Faculty Newsletter.

"OUR SYSTEM [OF GOVERNANCE]

is a peculiar MIT concoction: A unitary faculty meeting with real power and influence, but which draws more than 15% of the faculty, only when a hot item is on the agenda; a meeting designed to do the faculty's business, but which is chaired by the President on most occasions . . .". So begins Jake Jacoby's article "On Our Faculty Governance" in the May/June 1991 *Faculty Newsletter*. Jake acknowledges difficulties with the unconventional system of government but extols its benefits: blurring the boundary between faculty and administration; according great influence to minority opinions since poor attendance in meetings make any block of individuals significant; demanding "shoe leather cost" from those managing important issues since consensus is highly desirable before a poorly attended faculty meeting; forcing a conservative bias on decisions.

Jake felt that "most faculty are satisfied with the current arrangement" and since no "alternative is evidently better in our context, then we need to devote some real effort to search for ways that we can keep our own unique system vital, and responsive to evolving circumstances."

Other opinions have also appeared in the *Newsletter*. In March 1993, facing financial difficulties similar to the present one, the Editorial Board wrote "Faculty Malaise: A Case of Learned Helplessness?" The comments were motivated by the feeling that "Time and time again we see ourselves and our MIT colleagues failing to react constructively and proactively to conditions under which we – as members of any community worthy of the name – would quite readily evince a sincere sense of shared concern and come together as responsible

individuals to engage in socially responsible action." The article described "learned helplessness" in the following way: "When painful experience teaches us that it is beyond our power to bring about changes in the prevailing conditions, we learn to stop trying Once learned, the expectation that responsiveness to aversive conditions in a given environment generally proves futile, tends to inhibit present and future responsiveness in that situation by undermining both (1) the motivation to respond, and (2) the cognitive capacity to perceive the existence of opportunities to respond effectively if and when they become available." The piece ends with a call to change ". . . and it might as well begin with us Are we ready, willing, and able to join with the MIT administration in the process of shaping the future of this unique place? Are they ready, willing, and able to accept us as full partners in this task? And what is the Corporation's view of these issues?"

On August 25, 1997 (Vol. 117, No. 34), Anders Hove, opinion editor of *The Tech*, wrote "Excessive Committees Devalue Governance." The thesis is that the fragmentation of decisions into so many committees results in confusion and responsibility falling between the cracks and a situation where few people can tell what is going on.

All the quoted opinions have elements of truth. As I have written before, I summarize the reasons for poor attendance to faculty meetings as: all decisions are already made (helplessness); issues discussed are trivial (consensus of important issues is generally achieved by key players in committees), and there is an overall lack of knowledge of issues; we are too busy with more pressing issues, with the implication that we trust that good decisions are being made most of the time.

Before giving more opinions or suggesting actions, it is worth noting that there is at least one forum where faculty (not in committee) come together and engages in lively discussion of important issues. These are the monthly

"random faculty dinners," hosted by Jay Keyser. Last September's dinner was representative, occurring the day after the budget and the educational commons discussion in the faculty meeting. The dinner was what the faculty meeting was not: an open, frank, generally fair, debate of the present financial difficulties and the planned review of the educational commons. It was great. The problem is lack of follow-up since, by design, those capable of answering the questions as ultimate decision makers are not present at those dinners.

Although I do not think that the system of governance is broken, I do think that changes are needed, as Jake Jacoby wrote, to keep the system of governance vital within the context of MIT's present reality. This feeling, I believe, is shared in some degree by Chuck Vest and Bob Brown, who very much want faculty input and spend innumerable hours trying to get that input, with varied success. Presently, I do not have a clear vision of all that needs to change or of how it needs to change. What follows are thoughts on sub-topics related to governance.

Let me begin with faculty meetings. Some state that the trust of the faculty on the decisions of our colleagues in committees and the administration makes attendance at faculty meetings unnecessary. As evidence, they point out that the faculty does attend meetings when the occasion warrants it, particularly when an imminent or past decision is perceived as wrong. I would argue, though, that such reactive occasions are not healthy and for the most part serve for venting concerns, but rarely change or create policy. Let me then make the assumption that better-attended meetings and more open debate would lead to more information transfer and more informed decisions. Albeit not perfect, I like to compare faculty meetings to the venerable New England town meetings. After reaching a certain size, particularly in this day and age, many towns have found that the traditional town meeting meant

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Improving Our System of Faculty Governance

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the theoretical right of all to vote, but the responsibility of none. Representative town meetings are now common. What most of us do not want is a politicized representative faculty meeting that would become the realm of a few willing players. Maybe all senior faculty should share a rotating responsibility as attendees of meetings and reporters to their particular units. At the very least this will guarantee a reasonable attendance and a more informed faculty.

All faculty meetings are currently opened to the MIT community. In practice, that means that they are opened to anybody. Many feel that this hampers the ability of the faculty to have honest and broad debate on sensitive issues. The bottom line is that most of us are not interested in having potentially embarrassing public discussions with colleagues and leaders. Maybe not all faculty meetings should be opened to the public; closed and open meetings could be scheduled ahead of time and the agendas appropriately determined. The reason the “random dinners” discussions are so wonderful, is because the social setting, the confidentiality, and the meeting of equals create a sense of security and trust.

In this age of electronic communications, it should be possible to conduct most of the routine business and votes outside of a formal meeting. The meetings, which after all are not held very often, could be reserved for the more hefty issues, open debate, and to promote information transfer and communication. Some have argued that some meetings could also serve as forums for faculty lectures. The suggestion has been made that the Killian lecture should be part of a formal gathering of the faculty, open to the public.

There is no doubt that the committee structure serves MIT well. Nevertheless, it leads to a system where a few, generally quite wise individuals, are fully informed of the issues and effectively make the ultimate decisions, because the broader debate does not occur in the faculty meetings. Most of the time this is fine. Many times it leads to surprises when faculty learn of policy of which they were unaware. You could argue that it's the fault of individuals for not keeping up with the issues.

I would agree if this scenario were rare and isolated. When it is widespread and the norm, then I think it is the system that needs improvement. The fact is that there are reasonably few standing committees of the faculty. Some work very effectively and have hefty responsibilities. Others are lacking in significant agendas and do far less. In many ways the structures lack symmetry. For example, three major faculty committees, populated by elected faculty, lead undergraduate education. One committee deals with policy, another overviews curricula, yet another deals with admissions and financial aid. Graduate education has one committee, headed by the Dean and populated by departmental representatives. The result is two very different systems that place different emphases on commonly similar issues.

MIT is increasingly involved in international programs. These programs bring up questions about resources, administration, and adherence to MIT principles of openness and non-discrimination. Yet we have no standing faculty governance structure to provide the guidelines for MIT participation.

The Faculty Policy Committee (FPC), the over-arching committee in the existing structure, has the charge to “maintain a broad overview of the Institute’s academic programs, deal with a wide range of policy issues of concern to the faculty, and coordinate the work of the faculty committees.” Very quickly the FPC finds itself playing the role of gatekeeper to the faculty meetings, giving final approval to recommendations by other committees, or serving as a sounding board for ideas arising largely from the administration. Indeed, that is a necessary function – but what is lacking is the strategizing role, the faculty body who can think of issues and define positions to be taken by the faculty which in turn can help and guide the administration.

A related question is the relationship of the standing committees to presidential committees, task forces, councils, and the many other committees that the Institute appoints. The authority to appoint these “transient” committees is important. It provides flexibility; it provides opportunity for involvement of many faculty members, tapping the large majority of the faculty at some point or another. On the other hand, proliferation of committees can

result in duplication, busy work, and at worst a “disconnect” from the activities of the permanent structures of governance. There is a need to reconcile and define this system of committees.

The presidential search process has provided an opportunity for the Institute to explore alternative ways of decision-making through input from the larger community of faculty. The presidential search committees have engaged a process that has tapped grass roots participation, by visiting each academic unit and soliciting viewpoints about the presidency, potential candidates, and future directions of MIT. Each visit was moderated by one of the officers of the faculty or the chair of the Faculty Advisory Committee on the Presidency. The various academic units emerged from this process of discussion – and sometimes debate – with a sense of involvement, even empowerment, as they reflected not only on the larger requirements for the presidency, but also on their relationship to the Institute and the outside world. The discussions were usually frank and uninhibited, many times trenchant and probing, always informative and helpful. The challenge to the search committees is to find a strategy to use that grass roots input to reflect the sentiment of the faculty and to promote the best interests of the Institute. Faculty meetings, as presently constructed, could never elicit these kinds of invaluable suggestions and viewpoints. While this process was time-consuming and cumbersome in minor ways, similar, more streamlined ones could be created for certain major institutional decisions that would benefit from such faculty input.

MIT operates much better than most other academic institutions I know. Its system of governance allows for fairly fast decisions, it is not caught in too many political intrigues, and most importantly has always avoided the “them and us” syndrome between administration and faculty. After all, the academic administration is faculty. All of the above are characteristics that we must preserve. Nevertheless, the system must evolve and adjust to the times. If the faculty is to retain the responsibility of the academic well-being of the Institute, then it must become more involved and the system of governance should facilitate that involvement. ■

Candidates for Election to Faculty Newsletter Editorial Board

THE MIT FACULTY NEWSLETTER has represented the views of MIT faculty for more than 35 years. Since its inception, the *Newsletter* has been maintained by a volunteer Editorial Board, over time involving more than 60 members of the faculty from all Schools of the Institute. Since 2008 we have followed a formal nomination and election process with direct electronic election of Board members by an electorate of the full faculty and emeritus faculty. Given the absence at MIT of a faculty senate or elected council, the FNL is one of the very few independent voices of the MIT Faculty. We hope you will or already have participated this year via the email ballot.

The origin of the *Faculty Newsletter* (FNL) was in response to the dissolution of the Department of Applied Biological Sciences (ABS) in December of 1988 by

then-Provost John Deutch and Dean Gene Brown. In response, a group of senior faculty prepared a petition calling for a reversal of the administration's actions. At the time they had difficulty in circulating the draft, due to the unwillingness of the administration to make faculty mailing lists available. In addition, with the faculty meeting agenda set and the faculty meeting chaired by the president, fully open discussion was not easy. The FNL emerged as an effort to establish open lines of communication among faculty (web.mit.edu/fnl/volume/201/fnl00.pdf).

Though the dissolution was not reversed, the faculty resistance resulted in all ABS faculty and students remaining employed at MIT. The report of the Committee appointed to review the affair can be found at web.mit.edu/jbelcher/www/ABS/.

During the ensuing years, the *Newsletter* has provided a forum for expression of faculty concerns and views, a major channel of communication among the faculty, and a means for candid debate on difficult issues. The primary guiding principles have been to provide open access for faculty and emeritus faculty to express views on issues of concern. This is ensured through control of editorial policy by the faculty Editorial Board, independent of influence by the MIT administration.

The *Newsletter* has come to be widely read, not just at MIT but outside as well, through the online edition at fnl.mit.edu. The FNL – though focused on MIT – also serves as a forum for discussion of critical national and international issues. With the support and involvement of MIT's faculty, the *Newsletter* will continue to play an important role at MIT and beyond. ■



Nicholas Ashford

Nicholas Ashford
<http://ashford.mit.edu/>

Nicholas Ashford is Professor of Technology & Policy and Director of the Technology & Law Program at MIT, where he teaches courses in *Environmental Law, Policy, and Economics*; *Law, Technology, and Public Policy*; and *Technology, Globalization and Sustainable Development*. He is a Faculty Associate of the Center for Socio-technical Research in the School of Engineering; the Institute for Work and Employment Research in the Sloan School of Management; and the Environmental Policy Group in the Urban Studies Department. He holds both a PhD in Chemistry and a Law Degree from the University of Chicago, where he also received graduate education in Economics. In the late 1970's he secured funding from the Sloan Foundation to create the Technology and Policy Program at MIT.

Dr. Ashford is the co-author of two textbooks/readers used in his classes: *Technology, Globalization, and Sustainable Development: Transforming the Industrial State* and *Environmental Law, Policy and Economics: Reclaiming the Environmental Agenda*. He has recently written two articles for the MIT Faculty Newsletter on Misinformation and on Distractive Driving. Other publications include writings on community participation

in energy policy, addressing inequality, universal basic income and inclusive capitalism, the role of environment in cancer, the four-day workweek, the precautionary principle, and major challenges to education for sustainable development. These research areas should encourage views from the MIT faculty in the FNL Editorial Board as important sources of ideas and reforms in the exercise of academic freedom.

**Candidates for Election to Faculty
Newsletter Editorial Board**
continued from preceding page



Nazli Choucri

Nazli Choucri (current Editorial Board member)
<https://nchoucri.mit.edu/>

I view the Faculty Newsletter as a distinctive and unique venue for voicing the views of the faculty – the convergences and the divergences, the various contentions and the forms of cooperation, as well as the continued effort to do so, and always with attention and respect. As Professor in the Department of Political Science, I appreciate how contentions can run deep – here and everywhere – as I do the importance of interaction, communication, and just listening. These are complex times, and our immediate priority is, and must continue to be, the wellbeing of our students. At the Institute, I relate to the common category of “underrepresented minority”. Such is also the case in every single professional community with which I interact. That, in itself, has its reward, especially for a scholar whose reach is anchored in multi-disciplinarity. Then, as a long-standing member of the MIT community, I continue to appreciate that excellence, integrity, and diversity are fundamental values of the MIT Faculty and that respect for differences – with-no-exceptions – is core to the Faculty Newsletter. Clearly, and without reservations, it is imperative that this main venue for faculty voices remains one with independence and autonomy.



Yoel Fink

Yoel Fink – Department of Dissent (DMSE/EECS/RLE/ISN)
<https://fnl.mit.edu/wp-content/uploads/2024/05/Yoel-Fink-short-CV-2-3-24.pdf>

During these challenging times, the faculty's voice is crucial in shaping MIT's direction. The Faculty Newsletter (FNL) has been a stalwart in crystallizing this voice. To further this mission, we must enhance faculty engagement, diversify its board (currently staffed by one from SoE and zero from Sloan), and ensure it adheres to its own policies while being responsive to others' recommendations (Graves Report 2002).

I will be advocating for:

- 1. Representation:** Broaden representation to reflect the MIT faculty's diverse disciplines and opinions.
- 2. Renewal:** Modernize to increase transparency, accessibility, and engagement.
- 3. Relevance:** Guide the FNL to focus on pivotal faculty issues, maintaining independence from narrow interests. Work with Pulse (Peko and Michael Short's polling tool) to help align the FNL's content with faculty priorities.

“We believe that the Newsletter can be made more effective, more representative, and more exciting. We have several recommendations aimed at rejuvenating and re-energizing the Editorial Board...” Graves Report on the FNL circa 2002.

**Candidates for Election to Faculty
Newsletter Editorial Board**
continued from preceding page



Thomas Heldt

Thomas Heldt

<https://imes.mit.edu/people/heldt-thomas>

I am a tenured Associate Professor of Electrical and Biomedical Engineering with the Department of Electrical Engineering & Computer Science. I am also a core faculty member of the Institute for Medical Engineering & Science and a Principal Investigator with the Research Laboratory of Electronics. Having started my university education in physics at Gutenberg University, Germany, and Yale University, I joined MIT as a graduate student in 1997. Following my PhD I remained at MIT as a postdoc (with the Laboratory for Electromagnetic and Electronic Systems) and Principal Research Scientist (Research Laboratory of Electronics) before joining the faculty in 2013. I have thus experienced life at the Institute from various perspectives, interacting with a range of offices and officers.

I value the Faculty Newsletter as an independent forum open to *all* faculty to provide their perspectives on pressing issues of the day – be they educational, political or institutional. It serves an important purpose in our campus discourse as the only long-form medium to engage with faculty colleagues and the administration. As a member of the FNL Editorial Board, I will support the FNL's mission by seeking out contributions

across a wide range of viewpoints and opinions and maintaining its role as a catalyst for campus debate.



Jonathan A. King

Jonathan A. King (current Editorial Board member)

<https://web.mit.edu/King-lab>

Together with Professors Vera Kistiakowsky and Lawrence Lidsky, I was a founder of the MIT Faculty Newsletter. We couldn't remain bystanders to the threatened terminations of all our colleagues in the Department of Applied Biological Sciences. In the decades following, the FNL published numerous reports from Committees and Task Forces and hundreds of articles from faculty on diverse topics of concern. On occasion, maintaining the integrity of the faculty required criticizing administrative decisions – lack of gender equity, building commercial office buildings rather than graduate housing, embracing Saudi Prince Mohammed bin Salman, looking the other way with respect to Jeffrey Epstein's efforts to influence the campus.

In my department I taught the core laboratory course, advanced undergraduate and graduate courses, and directed the Transmission Electron Microscope Facility for decades, which served the entire Institute. I've been a Guggenheim Fellow, President of the Biophysical Society, and recipient of the NIH MERIT Award, of the Emily Gray National Teaching Award of the Biophysical Society, and of MIT's MLK Jr. Faculty Leadership Award.

If re-elected this will be my last term. I hope to secure the FNL's future as an independent voice of the faculty as long as MIT lacks a true Faculty Senate.

**Candidates for Election to Faculty
Newsletter Editorial Board**
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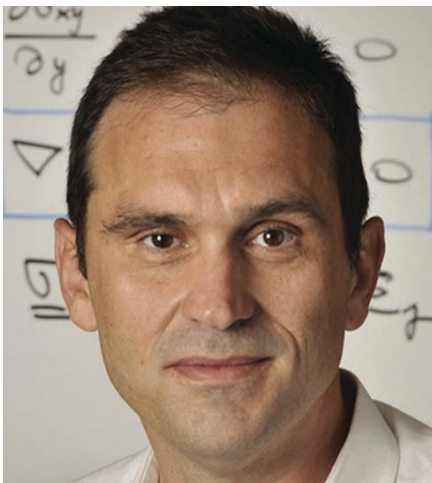


Tanalís Padilla

Tanalís Padilla

<https://history.mit.edu/people/tanalís-padilla/>

Service on the Faculty Newsletter’s Board is an opportunity to bring my perspective as a historian of the Global South to the MIT community. Attuned to the importance of context, narrative, and international dynamics, I value the opportunity to bring these analytical tools to this forum for faculty discussion. I look forward to working with my colleagues across disciplines to showcase both achievements and challenges in a way that promotes faculty voices at the Institute. I am especially eager to highlight the role of the humanities in MIT’s mission of global engagement.



Franz-Josef Ulm

Franz-Josef Ulm

https://cee.mit.edu/people_individual/franz-josef-ulm/

I am a professor of engineering mechanics in the Department of Civil & Environmental Engineering. I studied in Munich and Paris, became a research scientist (chargé de recherche) in France’s thriving public research system, before joining MIT 25 years ago. I come from a cultural background in which in the 20th century free speech was curtailed with disastrous consequences. It all started in academia.

For 25 years I took FNL for granted: to raise a faculty’s voice in matters of concern and controversy both internal and external to our collective life at MIT, from the courageous position against the Patriot’s Act after 9/11; to the ongoing spectacular failure of our disciplinary system to protect free speech for all since October 7. For there are 1,000 voices to be heard without fear of retribution and intimidation, with a sense of moral responsibility that we all belong here at MIT in full respect of our otherness; I cannot take FNL, its editorial independence and critical role for us all for granted any more. Which is why I want to join the Editorial Board of FNL.

No More MIT Research for Israel's Ministry of Defense

ON APRIL 19TH, MEMBERS of MIT's Graduate Student Union – UE Local 256 (GSU) democratically adopted a [resolution](#) calling for a permanent ceasefire in Gaza and the MIT community to cut all research and financial ties with the Israeli military. The resolution passed with a [70.5% yes vote](#), and comes on the heels of a corresponding MIT Undergraduate Association [resolution](#) that received a [63.7% yes vote](#).

MIT has received over \$11 million in research funding from the Israeli Ministry of Defense

Over the past six months, the Israeli Ministry of Defense has been credibly accused of war crimes including the mass killing of [tens of thousands of civilians, including children, 5,479 students, 261 teachers and 95 university professors](#); the [forcible displacement of millions](#); the destruction of [universities and hospitals](#); the slaughter of countless medical workers, [journalists](#), and [humanitarian aid workers](#); and the [forced starvation](#) of an entire people. As of this writing, mass graves containing hundreds of bodies of [bound-up individuals](#) and [children](#) are being uncovered at several besieged hospitals.

MIT undeniably has a hand in these atrocities. Since 2015, the Institute has received over \$11 million in research [funding](#) from Israel's Ministry of Defense, with over \$1.6 million allocated for 2023 alone. These funds support projects with clear military applications including: [autonomous robotic swarms](#) (LIDS), algorithms for pursuit-evasion strategies (LIDS), underwater persistent monitoring (LIDS), and [quantum fiber magnetometry](#) (RLE). Notably, as of March 2024, two of these projects have been processed for renewal. MIT's relationship with the Israeli military apparatus includes special programs such as the Lockheed Martin seed fund, while Elbit, a member of MIT's [Industrial Liaison Program](#), manufactures many of the bombs that have destroyed every one of our peer institutions in Gaza, and continue to fall on displaced people.

It need not be this way. A key call of both the undergraduate and graduate resolutions, as well as the [Scientists Against Genocide Encampment](#), is an end to research collaborations with the

Israeli Ministry of Defense that make the Institute complicit in ongoing atrocities.

Divestment is a tried, tested, and accepted practice at MIT

Such a break is not unprecedented. In May 1970, MIT cited serious concerns about its complicity in the atrocities committed by US forces in Vietnam and [divested from its own special research center](#) – the Charles Stark Draper Laboratory, which was working on guidance systems for the [Poseidon missile](#). Just two years ago, the Institute swiftly discontinued [the Skoltech collaborations](#) the day after Russia's invasion of Ukraine. These divestments were morally urgent and neither was considered a breach of academic freedom.

It is we, the students, staff, and faculty of MIT, who have always been crucial in curtail-ing any negative societal impacts of the Institute's research. Institute Professors Noam Chomsky and Henry Kendall have consistently spoken up against MIT's complicity in militarism through forums like [Scientists Strike For Peace](#) and [Bulletin of the Atomic Scientists](#). In 1987, the Coalition Against Apartheid (CAA) erected a [shantytown](#) on Kresge Lawn to urge the MIT Corporation to divest from Apartheid South Africa. This time is not any different.

Faculty, we need your support!

We know from the past that divestment is possible, and that the efforts of faculty will be crucial in making it happen. We call on faculty of conscience to use your positions of influence to:

1. *Cease any and all research collaboration with the Israeli military.* Further, we call on you to apply pressure to the Institute and your peers to end complicity in violent technologies, and to engage in conversations with colleagues about the impacts of research projects underway at MIT – especially their role in the current assault on Gaza and the continued oppression of the Palestinian people.

2. *Organize with us on the ground* by joining [other allied faculty and staff](#) and making your support known to your students, your colleagues and the administration. As seen at [Emerson](#), [Harvard](#), [Columbia](#), [NYU](#), [UT Austin](#), and [Yale](#), the support of faculty

MIT Graduate Students for Palestine

members strengthens our movement, and protects all of us as we continue to organize.

3. *Uplift Palestinian institutions of knowledge*, especially by helping rebuild [science](#) and [research](#) capacity in Palestine, similarly to what MIT has done recently for [Ukraine](#). Academics in Palestine ask that we collaborate with Palestinian researchers, invite them to give talks, and engage with them like other peers around the world. They ask that we assist them in accessing publications and [academic opportunities](#).

The future of research must be liberatory

It is incumbent on us as researchers at a powerful institution to constantly confront the purpose and impact of our research; who it serves, and who it has the potential to harm. We recognize our place in a constellation of global, grass-roots organizers working towards a future free of imperialism, racism, exploitation, militarism and all other forms of oppression. It is our responsibility to ensure that our institutions support the liberation of all people: from Palestine to the Congo to Sudan and Haiti.

In a recent video to the MIT community, President Sally Kornbluth reiterated her position that there is a “distinction between what we can say – what we have a right to say – and what we should say.” There is also the question of what we must say. We must speak against atrocities enabled by our science. We must emphasize the urgent moral distinction between what funding we can take – and have the right to take – and what funding we should take.

MIT students are resolute in our call for all faculty to reject funding from the Israeli military. We believe in the emancipatory power of science: a science that is life affirming, invested in building sustainable and equitable futures, that strives to relieve suffering for our fellow human beings. As we reflect on our vision of science as a tool of liberation, not oppression, we remind you that we are not just your students, but your eventual colleagues and successors. We are building a future for academia that we will be proud to take part in. We invite you to join us.

MIT Graduate Students for Palestine can be reached at g4p-contact@mit.edu. ■

Antiracism or Oppression: MIT Must Choose

JUST AFTER 5 PM on November 9th the MIT community bore witness to a scene that should belong to a dystopian fever dream, not a 21st century hall of learning. Dozens of MIT police officers stormed into Lobby 7, batons and pepper spray at the ready. Their target? A peaceful sit-in by students protesting the university's complicity in the [genocide of Palestinians](#). MIT police stood guard at all points of entry and barricaded the peaceful student demonstrators inside; even denying re-entry if students left Lobby 7 to access food, water or bathroom facilities. The next day, [MIT police stood guard outside 10-250](#) – where a pre-approved series of Palestine-related educational programming (documentary screenings, lectures, and teach-ins) was scheduled to take place – and barred anyone from entering.

This was not the first time MIT police have oppressed members of our community under the guise of “public safety.” From enduring a SWAT raid in dorms to having guns drawn at us in parking lots, Black and brown members of the MIT community have long faced pervasive racial profiling and interrogation (see minutes 33:00-43:00 [here](#)). The present escalation of oppressive policing that is being used to target students, faculty, and staff protesting genocide is rooted in the MIT administration's failure to listen to Black students who have long fought to address anti-Black racism at MIT. The university cannot plausibly create an anti-racist environment while continuing down this path; now, MIT must choose.

Empty Commitments to address anti-Black racism and public safety

Nearly four years ago, students from the Black Graduate Student Association (BGSA) and the Black Student Union (BSU) released the [petition to Support Black Lives](#) (SBL) at MIT. The murders of Breonna Taylor and George Floyd in the summer of 2020 seemingly illuminated the reality that [violence and racism are inherent to policing itself](#) and that we must reimagine public safety in the US. The SBL petition was our way to bring this moment to MIT, and it was met with overwhelming support with over 5,000 individual signatures from students, staff, faculty, and others.

One of the primary goals of the SBL petition was to reduce the scale of policing on MIT's campus and reallocate resources to build other structures better equipped to address certain public safety concerns. In July 2020, former President Reif ensured that MIT

would respond to this historic moment by creating a working group to reimagine public safety. This working group, which comprised students, faculty, administrators, and MIT police officers, made a number of [recommendations](#). One proposal, put forth in response to the MIT police department's (MITPD) self-reported statistics that over 90% of calls for service are non-violent concerns such as stolen bicycles, was to develop an unarmed community service officers (CSOs) and/or clinicians, who would respond to routine calls and mental health crises. This would have narrowed the scope of policing on our campus and prevented the current use of police force to surveil and intimidate MIT community members. The working group also recommended increased transparency on police policies and procedures, and a community advisory group to provide feedback regarding campus safety. None of these recommendations have been fully realized.

MIT's (in)actions show how little the Institute values the community members that devoted over a year of labor to the ‘Reimagining Public Safety’ working group, and the Black and brown communities chronically and disproportionately impacted by policing. MIT's (in)actions reveal that the university's 2020 pledge to “[address systemic racism at MIT](#)” was only opportunistic alignment during the momentary “trendiness” of antiracism. MIT's true values are revealed in the current moment, when the Institute is faced with a groundswell of justified anti-genocide protest.

MIT's Response to Peaceful Protest Against Israel's Genocide of Palestinians in Gaza

Over the past six months, students, staff, and faculty have raised alarms about the Institute's complicity in the maiming, death, displacement and starvation of 2.2 million Palestinians in Gaza given MIT's direct and unique research ties to the Israeli Ministry of Defense. Rather than grappling with this serious issue, nearly four years after MIT's empty commitments to addressing systemic racism and policing, the Institute has turned to using its police force to heighten the surveillance and intimidation of its own community members.

Without any attempt to gather broad community input, MIT has permanently stationed police officers in Lobby 7. These officers have reportedly conducted random and potentially racially motivated MIT ID checks that resemble [racist Stop and](#)

Black Graduate Student Association

[Frisk laws](#). Dozens of cameras have also been installed on campus (in Lobby 7, in front of 77 Massachusetts Avenue, and along the path to the Student Center) without notification to community members. Police officers have consistently been stationed outside all events organized by student groups aiming to educate the community about the ongoing Palestinian Genocide; resembling the racist policies that the Reimagining Public Safety group [recommended](#) we discard. The Institute's emergency alert system is constantly misused to notify the community of peaceful demonstrations passing through Massachusetts Avenue. In short, the facade of addressing antiracism and reimagining public safety has come crashing down.

MIT Has A Choice To Make

The suppression of anti-genocide and anti-Zionism protest inherently relies on and reinscribes racist policies, procedures, and policing. This reliance on policing has created fertile ground for the violent scenes we have witnessed at Columbia, NYU, USC, [University of Texas at Austin](#), University of Minnesota, [Emory](#), and in our own backyard at Emerson and Northeastern. If MIT is to seriously embrace its professed commitment to [address systemic racism](#), MIT must abandon its carceral – surveillance, policing, and punishment – stance and engage with members of the MIT community in good faith. This means reinstating the Coalition Against Apartheid, rescinding the racist and unprecedented protest policy, and avoiding further police escalation. It also means engaging with and honoring the MIT community's collective demands – to [divest](#) from research and financial relationships with the Israeli military and publicly call for a ceasefire. Finally, to affect long-lasting anti-racist change, MIT must reallocate MITPD's budget to develop [evidence-based](#) structures proven to create real holistic safety.

We have laid out some steps on the path to anti-racist actions that MIT can take if antiracism, not oppression, is the value MIT wants to reflect. *Every member of MIT's community has a choice in this matter and must decide to either let oppression permeate our culture or take anti-racist action to build a better world.* Now, MIT must choose.

The Black Graduate Student Association can be reached at bgsa_exec@mit.edu. ■

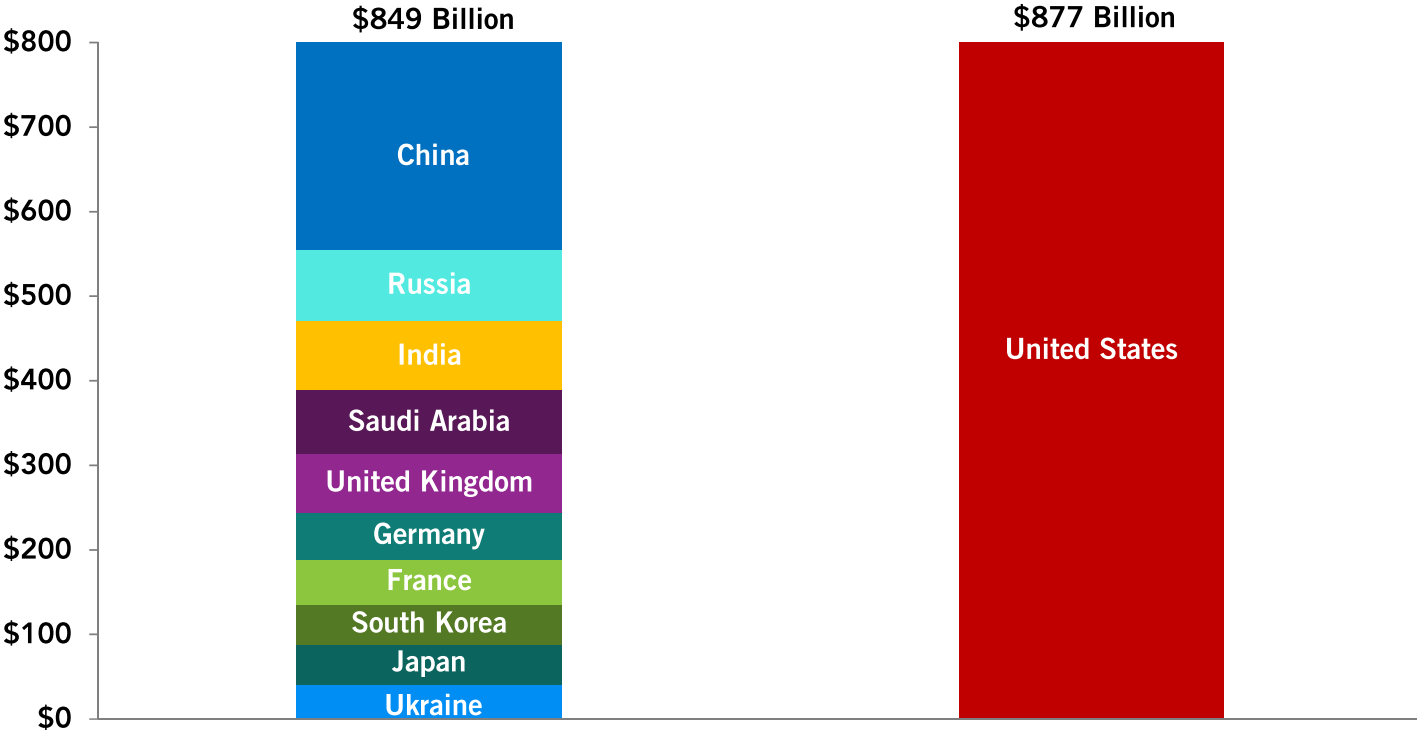
Numbers

US Defense Spending Compared to Other Countries



The United States spends more on defense than the next 10 countries combined

DEFENSE SPENDING (BILLIONS OF DOLLARS)



SOURCE: Stockholm International Peace Research Institute, *SIPRI Military Expenditure Database*, April 2023.
NOTES: Figures are in U.S. dollars converted from local currencies using market exchange rates. Data for the United States are for fiscal year 2022, which ran from October 1, 2021 through September 30, 2022. Data for the other countries are for calendar year 2022. The source for this chart uses a definition of defense spending that is more broad than budget function 050 and defense discretionary spending.

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Note: In order to finance the enormous military budget, Congress has to sharply limit spending for domestic programs that address human needs. Among these programs are those that institutions like MIT depend upon for supporting research and education, including the National Institutes of Health, National Science Foundation, and Department of Energy. The failure to increase federal housing programs is a factor contributing to the difficulties for MIT graduate students needing rental housing; the failure to adequately invest in public transit is one of the reasons for the constant breakdowns of the T transit system; though the nation eventually protected our population from Covid-19, fewer would have died had not critical programs for pandemic preparedness in the Center for Disease Control and NIH been cut earlier. Among the unnecessary and in fact dangerous expenditures contributing to the military budget is the planned modernization of the three legs of the nuclear arsenal, described briefly by Professor Redwine on page 1. **Jonathan A. King**