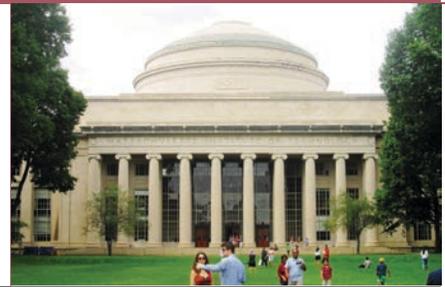


# MIT Faculty Newsletter

<http://web.mit.edu/fnl>

**in this issue** we offer “A Letter to President Rafael Reif and Provost Marty Schmidt Regarding Epstein” (page 8); “A Motion to Establish an Ad Hoc Faculty Committee to Protect Academic Integrity” (page 9); “New Atlas Process Paves Way for Supporting Undergraduate Research Innovation” (page 15); and “A Case for Mid-Semester Feedback” (page 17).



Maclaurin Buildings; Great Dome

## The MIT-Nepal Initiative: Four Years On

Jeffrey S. Ravel and Aaron Weinberger

**ON 25 APRIL 2015**, an earthquake with a magnitude of 7.8 on the Richter scale struck the South Asian country of Nepal, killing over 9,000 people and injuring more than 23,000 others. Aftershocks continued in the following days and months, including a 7.3 magnitude quake on May 12 that killed or injured another 2,700. Hundreds of thousands of people were made homeless, with entire villages flattened across many districts of the country. Centuries-old buildings were destroyed at UNESCO Heritage sites throughout the Kathmandu Valley. It was the worst natural disaster to strike Nepal since the 1934 Nepal-Bihar earthquake that registered 8.0 on the Richter scale and resulted in the deaths of over 10,000 people.

In the immediate aftermath of that earthquake, Nepali students at MIT

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## The Hard Road to Recovery

Cesar McDowell

**REVELATIONS OVER THE PAST** several weeks have left many at MIT feeling unwilling accomplices in the harming of children and the degradation of women.

[You will not see his name nor the names of others who have admitted their complicity in this article. They are not the issue that has MIT in moral turmoil. We are.]

MIT took money from a convicted Level 3 serial sex offender who preyed on young girls. MIT provided him access to the campus. MIT crafted an acknowledgment gift for him. MIT dismissed objections raised by members of the community. And MIT attempted to cover up its involvement through lies, omissions, silence.

Once the silence was broken things began to happen. There were resigna-

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## Editorial September Faculty Meeting Calls for Major Changes in Institute Policy

**THE INSTITUTE FACULTY MEETING** held Wednesday, September 18 was electric and historic, filling the Sala de Puerto Rico with both faculty and observers. The meeting almost certainly marked a turning point away from the dubious and damaging policies the Administration has been following, in courting a Saudi Arabian monarch who was credibly accused of criminal acts, a convicted sexual predator, and other discredited players.

Hopefully this will allow MIT to return to the principles, values, and academic integrity that our educational and research productivity and credibility rests upon. It should also enable increasing the recognition of the contributions and values of women faculty, building on the advances that followed from the Hopkins Committee report (“A Study on the Status

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### Subscriptions

\$15/year on campus

\$25/year off campus

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**September Faculty Meeting**  
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of Women Faculty at MIT,” *MIT Faculty Newsletter*, Vol. XI No. 4, March 1999). The reforms needed will require changes in governance that elevate the role of the faculty, students, and staff and end the running of the Institute from the top down.

In addition to the cogent statements from many individual faculty, a group of senior women faculty read a dramatic open letter, identifying their critiques of the Epstein affair and grievances, excerpted following and printed in its entirety below (page 8).

*“We write as senior women faculty members (current and emerita) of MIT to share our deep distress over the MIT/Epstein revelations and our profound disappointment in learning of the apparent complicity of administrative leadership. We write also to encourage efforts to uncover the truth about and learn from the current crisis. This letter is a call for integrity and action.*

*“From various departments across MIT, we are gravely concerned about the situation that has emerged: Institute leaders, faculty, and lab directors at MIT may have violated campus fundraising procedures. They certainly violated Institute values not only by accepting money from, but also by inviting onto campus Jeffrey Epstein, a “level three” (high risk of repeat offense) registered sex offender. MIT cultivated a relationship with Epstein over time that rewarded, empowered, and elevated him. With the approval of administrative leadership, faculty and staff attempted to conceal that relationship from those they knew it would disturb. Some students and staff who were asked to collude were made to feel morally compromised. Taking Epstein’s money suggested a willingness to turn a blind eye to the impact of his crimes, which included procuring the prostitution of a minor. The fact that this situation was even thinkable at MIT is profoundly disturbing, and is symptomatic of broader, more structural problems, involving gender and race, in MIT’s culture. It is time for fundamental change.”*

Another group of senior faculty brought forth a Motion to Establish an Ad Hoc Faculty Committee to Protect Academic Integrity, to establish standards of accountability and transparency and a due diligence process to prevent such errors in the future. This committee of faculty volunteers would avoid the conflict of interest inherent in all current bodies appointed or hired by the President, by sharply limiting participation from members of the current Administration. Excerpted following and printed in its entirety below (page 9), it will be considered at the October meeting of the Faculty.

**Therefore be it Resolved:**

*That the MIT Faculty establish an Ad Hoc Committee of the Faculty on Protecting Academic Integrity, composed of Faculty volunteers independent of the Administration, to draft a statement of MIT values and standards, reflecting the responsibilities incumbent upon MIT as a global university, and the procedures to be followed by the Institute in receiving outside funding. The mission of the Committee shall include the establishment of a robust due diligence process for review of all fundraising at MIT including a review of ongoing relationships in the light of MIT values, and establishment of standards for Institute agreements with outside agencies, governments, and individuals, drawing on examples of best practices around the world.*

**And be it further Resolved,** *That the standards, policies, and procedures include:*

*a) Compliance at all times with applicable local, state, and federal civil and criminal laws and to ensure adherence to applicable rules of international law in all their external and financial engagements.*

*b) Revised conflict of interest rules to ensure that Faculty members or researchers at MIT do not leverage fundraising for MIT-based research when it is for their personal gain unrelated to benefit for the MIT community or the public.*

*c) Protections and safeguards for whistleblowers that reveal wrongdoings or violations of policies.*

*d) Public notification of any proposed gift or engagement with a donor above \$100,000, with comments invited from the MIT community within a reasonable period.*

**And be it further Resolved,** *That the MIT Faculty requests the Chair of the Faculty ensure implementation of this resolution, in order to achieve the above goals; and further urges the Chair to ensure that the Ad Hoc Committee is provided adequate funds for staff support, and that it reports regularly to the MIT Faculty, and the Faculty Policy Committee, on the measures to be adopted as urged in this motion.*

Though there was a call for the resignation of President Reif alone, we think that much of the senior leadership share the blame for the rot that has set in, and that there will be calls for other resignations in the days to come.

**Faculty Newsletter Editorial Board  
Member Patrick Winston**

Prof. Patrick Winston, who passed away in July, was a longtime member of the Editorial Board of the *Faculty Newsletter*. His attention and concern for MIT policies and culture was unique, and he was an invaluable member of the Board. Patrick was one of the few faculty members willing to challenge MIT administrators, Department Chairs, and Committee Chairs, and to bring forth reports, updates, or proposals. He brought that instinct of looking beneath the surface of issues to the *Faculty Newsletter*, and we will all miss him greatly. (See In Memoriam, page 7.)

**Prof. Lloyd Resigns**

One of the faculty who received financial support from Jeffrey Epstein, and in fact visited him in jail in Florida, was Prof. Seth Lloyd, who had been elected to the *Faculty Newsletter* Editorial Board. Prof. Lloyd offered his resignation to the Editorial Board, in part not to inhibit our discussions of Epstein gifts. We accepted his resignation. ■

**Editorial Subcommittee**

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## From The Faculty Chair On the Responsibilities of Instructors

Rick L. Danheiser

**IN JULY I BEGAN** my appointment as Chair of the Faculty. Joining me as faculty officers are Professor Duane Boning of EECS as the new Associate Chair, and Professor David Singer of Political Science as the new Secretary of the Faculty. We are honored to have been elected to serve as your faculty officers for the next two years. Regular readers of the *Faculty Newsletter* are aware that it is the privilege of the Chair of the Faculty to prepare a column for each issue of the *Newsletter*. As I write this, my fellow officers and I have only been in office for a few weeks and we are still in the process of identifying key issues and setting our priorities for the next two years. Some of the topics we have been discussing and hope to consider in the coming year include the Institute's international engagements, faculty benefits (including availability and support for childcare and for faculty housing), promotion and tenure, graduate student tuition, the new Schwarzman College of Computing and its impact on the Institute, and last but certainly not least, the General Institute Requirements and plans for a task force on the undergraduate academic curriculum.

In my future columns in the *Newsletter* I intend to address these more substantive matters, but in this first column I would like to focus on a more mundane, albeit important and timely topic here at the beginning of the semester: term regulations.

### **Term Regulations: Read and Obey!**

Every semester the faculty officers receive a number of complaints from students – either directly or via the Undergraduate

Association (UA) – about classes violating term regulations. The UA maintains a website through which students can report violations with the option to remain anonymous, and the UA Committee on Education sends an email to all undergraduates several times over the course of each semester summarizing

the term regulations and reminding them of the process to report violations.

One of the responsibilities of the faculty officers is to enforce these *Rules and Regulations of the Faculty*. At the beginning of each semester I send an email to all instructors summarizing the key rules that affect how we teach. These fall into three categories: (a) grading guidelines, (b) restrictions on assignments and exams, and (c) the scheduling of exams, quizzes, and review sessions. Full details on the rules and regulations that affect teaching can be accessed via the Faculty Governance website at <https://faculty.governance.mit.edu/rules-and-regulations>. In this column I would like to discuss some of the most common violations that have come to the attention of the faculty officers in recent years, with a focus on rules that impact the assignment of grades.

### **Grading on a Curve**

... is strictly forbidden! For a few reasons I have devoted most of this column to a discussion of this particular rule. First, the mistaken view that grades are curved is widely held among students. I have frequently encountered eyerolls and skepticism when informing students that

For a few reasons I have devoted most of this column to a discussion of this particular rule. First, the mistaken view that grades are curved is widely held among students. I have frequently encountered eyerolls and skepticism when informing students that grading on a curve is prohibited at MIT.

grading on a curve is prohibited at MIT. And the fact is that curving (and the related “scaling” of grades) does happen, as we know from complaints received by the faculty officers in the past. Some faculty practice “curving” simply out of ignorance of the MIT rules, but a complicating factor is that grading on a curve is an accepted and common policy at many other institutions. Some new faculty join us having been students or having taught at places where grading on a curve is general practice and they assume that curving grades is legal here too.

A source of occasional confusion with regard to complying with this rule is that various people have different interpretations of just what constitutes grading on a curve. Aware of this confusion over the definition of curving grades, the faculty officers proposed expanding and sharpening the wording in *Rules and Regulations*

with regard to grading this past spring. After receiving input from relevant committees (FPC, CUP, CGP, and CAP), we introduced the new wording at the Institute Faculty Meeting on March 20 and it was approved by vote of the Faculty on April 17. The new wording in the section on grading (*Regulations of the Faculty* Section 2.62, see <https://faculty-governance.mit.edu/rules-and-regulations/#2-62-1>) states:

*“The grade for each student shall be determined independently of other students in the class, and shall be related to the student’s mastery of the material based on the grade descriptions below. Grades may not be awarded according to a predetermined distribution of letter grades. For example, grades in a subject may not be allocated according to set proportions of A, B, C, D, etc.”*

The definitions of grades are then outlined in section 2.62.1:

**A** *Exceptionally good performance, demonstrating a superior understanding of the subject matter, a foundation of extensive knowledge, and a skillful use of concepts and/or materials.*

**B** *Good performance, demonstrating capacity to use the appropriate concepts, a good understanding of the subject matter, and an ability to handle the problems and materials encountered in the subject.*

**C** *Adequate performance, demonstrating an adequate understanding of the subject matter, an ability to handle relatively simple problems, and adequate preparation for moving on to more advanced work in the field.*

**D** *Minimally acceptable performance, demonstrating at least partial familiarity with the subject matter and some capacity to deal with relatively simple problems, but also demonstrating deficiencies serious enough to make it inadvisable to proceed further in the field without additional work.*

I hope that the revised definition is clear! In explaining the MIT grading policy to my own classes I have always found it helpful and clarifying to tell the students that what this boils down to is that every student in the class has the potential to receive an A (always the hope of the teaching staff!) although everyone could poten-

In explaining the MIT grading policy to my own classes I have always found it helpful and clarifying to tell the students that what this boils down to is that every student in the class has the potential to receive an A (always the hope of the teaching staff!) although everyone could potentially get a C . . . it is just a matter of how well they have mastered the material.

tially get a C . . . it is just a matter of how well they have mastered the material.

I also hope that everyone agrees that this is the only policy that is fair and makes sense at MIT and that to grade on a curve would be contrary to Institute values. Why should the evaluation of one student’s level of mastery of the material in a class be influenced by the level of mastery demonstrated by other students? Do we not want to encourage students to focus on mastering the subject, not on competing with their classmates? Criterion-based grading avoids pitting students against each other and leads to a healthier atmosphere in which the students can appreciate that the instructors are rooting for all of them to get an A.

From the point of view of instructors, it is certainly much easier to grade on a curve, which is perhaps why it is so popular at other institutions. In some universities curving is regarded as a tool to fight grade inflation. A curve can also be a means of ensuring fairness in cases where classes are divided in various sections with different instructors and different exams (perhaps offered in different semesters). Grading on a curve then ensures that students are not disadvantaged by taking a class with a particular instructor, or in one semester rather than another.

Of course implicit in our MIT policy is the assumption that instructors can distinguish between (for example) A-level and B-level performance. The pithy MIT criteria quoted above are helpful in defining grade borders, and I have always found it pretty clear how to recognize what constitutes A-level work in a course.

In the words of Justice Potter Stewart (concerning another matter), “I know it when I see it.” Admittedly, however, defining grade borders can be challenging, especially for less experienced instructors, and consultation with colleagues can often be helpful in this connection.

OK – now time for a quiz! In each of the following scenarios, are we dealing with a violation of the MIT policy on grading or not? Answers are provided at the end of the column. Warning: some of these cases are not very clear-cut and are included to stimulate discussion.

(1) An instructor defines the grade borders for the first several assignments in a class based on the MIT grading criteria with the result that 25% of the class fall in the “adequate” or lower range (C or below). Just prior to drop date nearly all of these students drop the class. The remaining students continue to perform at a “good” (B) or “exceptional” (A) level. At the end of the semester, the instructor assigns 10-20% of the class a grade of C.

(2) An instructor analyzes the grade distributions in previous semesters for a subject and finds that in each case the

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**On the Responsibilities of Instructors**

Danheiser, from preceding page

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distribution was 25% A, 50% B, and 25% C/D/F. To ensure fairness relative to prior years, the grade distribution for the new semester is set to correspond to this distribution.

(3) Upon examining the distribution of scores after an exam the instructor chooses the letter grade borders so that they fall at breaks between significant numbers of scores in the list.

(4) After composing an exam, an instructor decides that a score of 80% represents exceptionally good performance, superior understanding, etc., in other words, A-level work. Upon grading the exams, however, the instructor finds that one question was worded in a confusing and misleading fashion and most students answered it incorrectly. Consequently, the instructor revises the A/B border to 75% to take this into account.

One more recommendation with regard to prudent policy. It is my experience that it is best to provide students during the course of the semester with a letter grade for each exam and assignment. This allows students to have an accurate idea of what letter grade they are headed for and minimizes disputes over grades at the end of the semester.

**The Take Home Messages**

• Don't grade on a curve! Review and

understand the MIT policy on grading and consult with colleagues (and the faculty officers) if you have any questions.

- Clearly communicate your grading policy to your students. We need to disabuse students of the notion that they are being graded on a curve and that a classmate's success can detrimentally affect their own grade in a subject. In my larger classes I have found many students to be obsessed with learning what the class average was on an exam. I inform them of the average, but I always use this as an opportunity to reiterate and emphasize that the class average has no bearing on the letter grade assigned to their numerical score.
- In the case of subjects taught by different faculty in different semesters, communication between instructors is essential to ensure that students are being evaluated on a similar basis.

I have run over the space allotted to me by the editors, but I would like to close with a few words about other aspects of the term regulations. As Associate Chair of the Faculty over the past two years it was my observation that the most common violations of term regulations involved (a) scheduling the due date for an assignment after the last day of classes, and (b) having an assignment due in a class with a final exam after the "Last Test Date". These are violations of Regulations 2.52 and 2.53, respectively, and typically are due to instructors who simply are not familiar

with those regulations. Occasionally, however, the violation has arisen due to questions concerning the definition of what constitutes an assignment, and this is a question that will receive attention from Faculty Governance in the future.

The answers to the quiz follow:

(1) I consider this to clearly be a case of curving grades and a violation of MIT policy. I provided this example because it highlights a major and common concern of those students who have the impression that some instructors at MIT grade on a curve.

(2) This is curving and violates MIT policy on grading although I appreciate the instructor's intent. It is not necessarily the case that grades were curved in the prior semesters, but in any event two wrongs don't make a right.

(3) A gray area. If the letter grade ranges are set primarily based on the MIT criteria, and then fine-tuned with reference to where there are breaks in scores, then this might be acceptable.

(4) Another gray area, but I would argue that this does not constitute a violation of policy since the grade borders are still being set based on the instructor's judgment of the level of mastery of material. ■

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**Rick L. Danheiser** is the Arthur C. Cope Professor of Chemistry and Chair of the Faculty ([danheiser@mit.edu](mailto:danheiser@mit.edu)).

## In Memoriam Patrick Henry Winston



The following is slightly abridged from the original which appeared in the July 19, 2019 MIT News.

**PATRICK WINSTON, A BELOVED** professor and computer scientist at MIT, died on July 19 at Massachusetts General Hospital in Boston. He was 76.

A professor at MIT for almost 50 years, Winston was director of MIT's Artificial Intelligence Laboratory from 1972 to 1997 before it merged with the Laboratory for Computer Science to become MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL).

A devoted teacher and cherished colleague, Winston led CSAIL's Genesis Group, which focused on developing AI systems that have human-like intelligence, including the ability to tell, perceive, and comprehend stories. He believed that such work could help illuminate aspects of human intelligence that scientists don't yet understand.

"My principal interest is in figuring out what's going on inside our heads, and I'm convinced that one of the defining features of human intelligence is that we can understand stories," said Winston, the Ford Professor of Artificial Intelligence and Computer Science, in a 2011 interview for CSAIL. "Believing as I do that stories are important, it was natural for me to try to build systems that understand stories, and that shed light on what the story-understanding process is all about."

He was renowned for his accessible and informative lectures, and gave a hugely popular talk every year during the Independent Activities Period called "How to Speak."

"As a speaker he always had his audience in the palm of his hand," says MIT Professor Peter Szolovits. "He put a tremendous amount of work into his lectures, and yet managed to make them feel loose and spontaneous. He wasn't flashy, but he was compelling and direct."

Winston's dedication to teaching earned him many accolades over the years, including the Baker Award, the Eta Kappa Nu Teaching Award, and the Graduate Student Council Teaching Award.

"Patrick's humanity and his commitment to the highest principles made him the soul of EECS," MIT President L. Rafael Reif wrote in a letter to the MIT community. "I called on him often for advice and feedback, and he always responded with kindness, candor, wisdom and integrity. I will be forever grateful for his counsel, his objectivity, and his tremendous inspiration and dedication to our students."

### Teaching computers to think

Born Feb. 5, 1943 in Peoria, Illinois, Winston was always exceptionally curious about science, technology and how to use such tools to explore what it means to be human. He was an MIT-lifer starting in 1961, earning his bachelor's, master's and doctoral degrees from the Institute before joining the faculty of the Department of Electrical Engineering and Computer Science in 1970.

His thesis work with Marvin Minsky centered on the difficulty of learning, setting off a trajectory of work where he put a playful, yet laser-sharp focus on fine-tuning AI systems to better understand stories.

His Genesis project aimed to faithfully model computers after human intelli-

gence in order to fully grasp the inner workings of our own motivations, rationality, and perception. Using MIT research scientist Boris Katz's START natural language processing system and a vision system developed by former MIT PhD student Sajit Rao, Genesis can digest short, simple chunks of text, then spit out reports about how it interpreted connections between events.

While the system has processed many works, Winston chose "Macbeth" as a primary text because the tragedy offers an opportunity to take big human themes, such as greed and revenge, and map out their components.

"[Shakespeare] was pretty good at his portrayal of 'the human condition,' as my friends in the humanities would say," Winston told *The Boston Globe*. "So there's all kinds of stuff in there about what's typical when we humans wander through the world."

His deep fascination with humanity, human intelligence, and how we communicate information spilled over into what he often described as his favorite academic activity: teaching.

A past president of the Association for the Advancement of Artificial Intelligence (AAAI), Winston also wrote and edited numerous books, including a seminal textbook on AI that's still used in classrooms around the world. Outside of the lab he also co-founded Ascent Technology, which produces scheduling and workforce management applications for major airports.

He is survived by his wife Karen Prendergast and his daughter Sarah. ■

**Adam Conner-Simons** is Communication and Media Relations Officer, Computer Science & Artificial Communications Lab HQ ([aconner@mit.edu](mailto:aconner@mit.edu));

**Rachel Gordon** is Communications Coordinator, Computer Science & Artificial Communications Lab HQ ([rachelg@csail.mit.edu](mailto:rachelg@csail.mit.edu)).

## A Letter to President Rafael Reif and Provost Marty Schmidt Regarding Epstein

September 16, 2019

To President Rafael Reif and Provost Marty Schmidt:

**WE WRITE AS SENIOR WOMEN** faculty members (current and emerita) of MIT to share our deep distress over the MIT/Epstein revelations and our profound disappointment in learning of the apparent complicity of administrative leadership. We write also to encourage efforts to uncover the truth about and learn from the current crisis. This letter is a call for integrity and action.

From various departments across MIT, we are gravely concerned about the situation that has emerged: Institute leaders, faculty, and lab directors at MIT may have violated campus fundraising procedures. They certainly violated Institute values not only by accepting money from, but also by inviting onto campus Jeffrey Epstein, a “level three” (high risk of repeat offense) registered sex offender. MIT cultivated a relationship with Epstein over time that rewarded, empowered, and elevated him. With the approval of administrative leadership, faculty and staff attempted to conceal that relationship from those they knew it would disturb. Some students and staff who were asked to collude were made to feel morally compromised. Taking Epstein’s money suggested a willingness to turn a blind eye to the impact of his crimes, which included procuring the prostitution of a minor. The fact that this situation was even thinkable at MIT is profoundly disturbing, and is symptomatic of broader, more structural problems, involving gender and race, in MIT’s culture. It is time for fundamental change.

You have appointed the Goodwin Procter law firm to investigate fundraising practices and MIT personnel involved in this situation. This investigation follows a series of loudly-voiced concerns about MIT’s acceptance of funding from controversial sources. While the ethics of fundraising are crucially important to us, we also strongly believe that the significant gender and sexual implications of the MIT/Epstein relationship must not be lost in these financial investigations and discussions.

Epstein’s victims, survivors, and their families have experienced additional degradation and damage because of MIT’s actions, as have our students, faculty, and staff. By allowing Epstein’s MIT relationships to flourish, the Institute failed in its obligation to provide a safe and supportive environment. Knowing that Epstein was invited to campus offices, survivors of sexual assault, rape, and/or sexual abuse – of whom there are many in this community – have been shaken. How can MIT’s leadership be trusted when it appears that child prostitution and sex trafficking can be ignored in exchange for a financial contribution?

Working to address its long history of gender inequity, MIT has enacted some positive measures over the years to attract and retain women students and faculty and to support them on campus. Yet those efforts are now at risk of being eroded. Epstein’s clandestine donations and visits to MIT are a stark reminder that “cutting edge” spaces of “technological innovation,” at MIT no less than elsewhere, remain exclusionary zones of privilege. [<https://medium.com/@zephoria/facing-the-great-reckoning-head-on-8fe434e10630>; <https://www.nytimes.com/2019/09/11/opinion/epstein-mit-media-lab.html>]

Too often, academic fundraising efforts and the projects that follow reinforce, rather than dismantle, gendered and racialized hierarchies. [<https://thetech.com/2019/08/29/joi-ito-needs-to-resign>] In 2019/20, there are 1,066 faculty members at MIT. Only 266 of them are women (178 are tenured; 88 are untenured; of all women only 21 are women of color). The Epstein situation has prompted many to question MIT’s commitment to meaningful inclusion. Members of our community have been left feeling undervalued, deceived, and unsafe.

How will MIT respond? MIT leadership regularly describes and celebrates the fact that our values and diversity are essential to building a better world. Yet, to our great and heartfelt dismay, MIT’s relationship with Epstein exposes a void where basic values should prevail, a cultural crisis that the administration must work to repair. Much needs to be done: from a thorough review of resource development practices and the inclusion of broader faculty participation in and oversight of fundraising, to providing robust support and resources to the women on campus. But that is just the beginning.

Former MIT President Chuck Vest is remembered for conducting a gender equity study in 1999, led by Professor Nancy Hopkins, and implementing many of its recommendations. How will the current MIT administration be remembered?

Sincerely, ■

**Editor’s Note:** At press time there were 70 MIT women faculty signatories. To view the letter online and to add your name see: <https://concernedatmit.weebly.com/>.

## A Motion to Establish an Ad Hoc Faculty Committee to Protect Academic Integrity

*The following Motion was introduced at the September 18 Institute Faculty Meeting and will be discussed and voted upon at the Institute Faculty Meeting in October.*

**Whereas**, The Massachusetts Institute of Technology (MIT) is committed to developing and maintaining an ethical environment in which faculty, students, and staff are able to truly advance its mission of working 'for the betterment of humankind'; and

**Whereas**, The recent revelations concerning funds received by the Media Lab from Mr. Jeffrey Epstein, from the Saudi Arabian government and its agencies, along with other past and ongoing donors, require clarifying MIT's values, and establishing a meaningful due diligence process for ensuring transparency and accountability in all fundraising activities; and

**Whereas**, MIT strives to be an institution guided by scientific temper and objectivity, with a commitment to facts and the rule of law, and therefore exhibits the courage to correct its mistakes, as when MIT acknowledged the need to improve the treatment of women faculty in the 1990s; and

**Whereas**, The values that guide MIT's faculty, students, and staff should never be traded or sacrificed for short-term monetary gains or vague promises of future benefits; and

**Whereas**, The MIT community, especially the Faculty, needs to have greater voice in reviewing fundraising and invest-

ment decisions at MIT with a view to ensuring that they are fully aligned with MIT's goals and values; and

**Whereas**, There will be increasing damage to MIT's standing as a leading educational and research institution if current trends involving fundraising continue without significant changes;

### **Therefore be it Resolved:**

That the MIT Faculty establish an Ad Hoc Committee of the Faculty on Protecting Academic Integrity, composed of Faculty volunteers independent of the Administration, to draft a statement of MIT values and standards, reflecting the responsibilities incumbent upon MIT as a global university, and the procedures to be followed by the Institute in receiving outside funding.

The mission of the Committee shall include the establishment of a robust due diligence process for review of all fundraising at MIT including a review of ongoing relationships in the light of MIT values, and establishment of standards for Institute agreements with outside agencies, governments, and individuals, drawing on examples of best practices around the world.

**And be it further Resolved**, That the standards, policies, and procedures include:

(a) Compliance at all times with applicable local, state, and federal civil and criminal laws and to ensure adherence to applicable rules of international law in all their external and financial engagements.

(b) Revised conflict of interest rules to ensure that Faculty members or researchers at MIT do not leverage fundraising for MIT-based research when it is for their personal gain unrelated to benefit for the MIT community or the public.

(c) Protections and safeguards for whistleblowers that reveal wrongdoings or violations of policies.

(d) Public notification of any proposed gift or engagement with a donor above \$100,000, with comments invited from the MIT community within a reasonable period.

**And be it further Resolved**, That the MIT Faculty requests the Chair of the Faculty ensure implementation of this resolution, in order to achieve the above goals; and further urges the Chair to ensure that the Ad Hoc Committee is provided adequate funds for staff support, and that it reports regularly to the MIT Faculty, and the Faculty Policy Committee, on the measures to be adopted as urged in this motion.

**And be it further Resolved**, That this Motion will be discussed and voted on at the October 2019 regular meeting of the MIT Faculty.

*Respectfully submitted: Robert Berwick, Ian Condry, Christopher Cummins, Sally Haslanger, Jean Jackson, Jonathan King, Roger Levy, Ceasar McDowell, Ruth Perry, Nasser Rabbat, Balakrishnan Rajagopal.*

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## The Hard Road to Recovery

McDowell, from page 1

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tions. The Administration launched an investigation. Members of the community held protests and demanded transparency and change in how MIT solicits and receives funds. MIT's Senior women faculty demanded integrity and action, and faculty sought a resolution for an independent faculty-led investigation.

While varied in tone and scope, these efforts have focused energy on the structural and ethical failures that brought MIT to this moment.

This structural failure is rooted in our system's failure – its limited transparency and community oversight. Calls for remedies range from independent faculty governance, to open donor records, to a mechanism for the community to reject and the Administration not to pursue funding from individuals or organizations that represent values antithetical to those of MIT.

The lack of clarity and specificity in our values is another failure. For many in the MIT community, the recent revelations coupled with the courting of Mohammad bin Salman, the honoring of Henry Kissinger, the naming of a college after Stephen Schwarzman, and the deep involvement of David Koch in MIT governance are all evidence of a clash between values and goals. A conflict where the goal of raising more money wins because the values that guide the taking of funds are neither clear, enforceable, nor collectively shared and agreed upon.

These are substantial failures of the MIT system. But we cannot address them without attending to what I believe is the most critical failure: The loss of trust, safety, and security in the community that has resulted in a profound sense of betrayal. MIT needs to provide as much if not more energy and resources into how to recover from this social trauma as it will put into investigations and reforms. Recovery cannot happen without reform. And reform alone is not sufficient for recovery.

## What's required for community recovery at MIT?

I put MIT in the title of this section because of the prevailing sense of MIT exceptionalism that pervades the community. But in this situation, MIT is like any other human social system and society. MIT's path to recovery requires paying

## The loss of trust, safety, and security in the community . . . has resulted in a profound sense of betrayal.

attention to and honoring what all human systems dealing with trauma must confront in an equitable and just manner. Let me list a few, in no particular order.

**Naming** – The community, particularly those most victimized by the issue, must name and frame the trauma the community is facing.

**Truth** – Without being compelled, those who have participated in the harm done to the community must reveal their role in the events that created the trauma.

**Listening** – Those who have facilitated harm must listen to those harmed.

**Consequences** – Those who most directly initiated and facilitated the harm must atone for their actions or inactions.

**Atonement** – To apologize is not enough. Those involved must ask for forgiveness, understanding that forgiveness may not be given.

**Amnesty** – The community needs a pathway for forgiveness and amnesty.

**Shift in Power** – Those entrusted with the decision that caused the harm can no longer fully or collectively hold that power.

**Transparency** – Hidden practices that facilitate this trauma must default to a position of openness.

**Time** – Individuals and groups require time, space, and resources for recovery.

**Urgency** – What *can* happen now *must* happen now regardless of the pain to the individual and the institution.

**Purgery** – The community will need a means of purging itself from people and practices that enabled the trauma.

**Remembering** – The community needs to provide a means always to remember what created the trauma and how it has recovered.

There is no easy path forward. The steps are complicated, and at times at odds with each other. But they must all be considered. No group is more affected by this

than our students. I have heard from undergraduate, graduate, and post-doctoral students who are concerned about what this means to them and their future. They feel betrayed – some by direct experience, some by association. In certain parts of our campus, distrust is the primary operating sentiment.

## We do not have to be defined by this trauma. Instead, we can be identified by how we approach it.

Last week, students, faculty, and staff gathered in the City Arena at DUSP (Department of Urban Studies and Planning) to reflect on the impact and meaning of the past month's revelations. The packed room reminded me of a similar gathering in DUSP two days after the Boston Marathon bombing. Some had been there when the bomb went off, others just heard about it on the news. All experienced the lockdown that occurred in Cambridge and felt the impact of the death of eight-year-old Martin William Richard and Officer Sean Collier. Many spoke of the trauma from being an unwilling victim and sometimes perpetrator of planned, unexpected, unwarranted, or thoughtless violence. From a former Israeli soldier, who asked "Do I kill these four men in my line of sight because of the threat they may pose?" to a woman who survived a brutal rape, the bombing made visible the deep trauma so many people live with from day to day.

As we sat in a circle listening to these stories, a young veteran spoke up about his experience with violence in the streets of Los Angeles and the desert of Iraq. He spoke with a deep passion that disrupted the quiet reflection of the group. “We can’t just sit around and talk about this. If things are going to change, we have to shift something fundamental in ourselves to stop the massive violence in our world.” He continued, “For me, it is the following commitment I have made to myself and that I tell each person I am engaged with: I Will Not Harm Your Children.” Then he stopped.

His words struck a chord. Over the next few days, the community crafted his commitment into a collective obligation for the department. While we never formally adopted this statement, it is worth recounting today:

*I will not harm children. As a member of the DUSP community, I commit to live by this statement. I will do this by asking the following question before I act in the world: Will this action, policy, investment, etc. harm children? If harm to a child is a possibility, how can I change what I am about to do so that I do not harm a child?*

*I agree to take on this commitment and to work to embed this commitment into the mission, practice, teaching, and research at DUSP.*

Perhaps we need to put this commitment in front of the entire MIT community. If adopted and practiced, we may never find ourselves blindly (but willingly) making decisions that make us unwitting accomplices in harming children. If adopted and practiced we can find our way to recovery. ■

**Cesar McDowell** is Professor of the Practice of Civic Design, Department of Urban Studies and Planning ([cesar@mit.edu](mailto:cesar@mit.edu)).

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## It Is Difficult to Know What to Do

Edmund Bertschinger

September 18, 2019

**IT IS DIFFICULT TO KNOW** what to do. The senior leadership team must have found it difficult to balance pros and cons of taking money from Epstein, the Kingdom of Saudi Arabia, and other bad actors. They must have struggled with comparing tangible benefits with intangible costs, with deciding where to draw the line, and with the choice to cross over that line without appearing to do so. I’m heartbroken that the senior team apparently spent more time discussing concerns about Epstein’s reputation than about MIT’s, when they took the drastic step of accepting money from a disqualified donor.

How many other times has this happened? Who are the other disqualified donors? Was money taken from them?

Has the leadership team consulted with community members outside their privileged circle, including sexual assault victims, to understand the impact of their decisions? What happened to those people who expressed concerns?

The new College of Computing has adopted a mission statement calling it to address the social and ethical aspects of computing. That is putting the cart before the horse. We need to address the social and ethical aspects of leadership. We want our students to take ethics classes, but what about our leaders? How many of our senior team understood that taking dirty money to do clean work means destroying the community’s trust? What do excellence, integrity, meritocracy, boldness, and humility mean now? Whose responsibility is it to make the world a better place?

To my friends who want to focus on the positive – for everything there is a season, and a time for every purpose. I don’t feel ready to focus entirely on the positive, and I am not alone. Listen to the words of Martin Luther King, Jr., who said that the greatest stumbling block for African Americans is not the Ku Klux Klanner, “but the white moderate, who is more devoted to order than to justice; who prefers a negative peace which is the absence of tension to a positive peace which is the presence of justice.”

It is difficult to know what to do. But it is not difficult to know when one’s personal values, and a community’s stated values, have been violated. ■

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## Two Donors, Two Deaths, Two Responses

Kerry Emanuel  
John E. Fernández  
Raffaele Ferrari  
Susan Solomon  
Robert van der Hilst

*The following article also appeared in the September 19, 2019 The Tech.*

**AS WE WRITE, THE STORY** of the MIT Media Lab's connection to Jeffrey Epstein is front page news. Not long after Epstein's death, it transpired that our Media Lab had accepted substantial donations from or engineered by Epstein even though Epstein's record of sex trafficking of minors, particularly underage women, was by then established in a court of law, so much so that he was marked as "disqualified" in MIT's donor database. As the revelations mounted, Joichi Ito resigned as director of the Media Lab and as an employee of MIT, and several faculty and staff resigned in protest. On behalf of MIT, Rafael Reif issued an eloquent mea culpa, promised to donate the equivalent of what MIT had accepted from Epstein to charitable causes, and (on the day of Ito's resignation) announced that MIT had hired a legal team to do a thorough investigation of the affair. MIT is taking this issue very seriously, as it should.

While all this was happening, another major MIT donor, David Koch, alumnus and lifetime member of the MIT Corporation, passed away of natural causes. Unlike Epstein, Koch was not involved, so far as we are aware, in any crime or major personal scandal and had given generously to MIT in support of unequivocally good causes, such as cancer research and the MIT childcare center; indeed, our cancer research center is named for him and we all take pride in its mission and accomplishments.

Yet, without diminishing the gravity of Epstein's despicable acts, it is important to recognize that David Koch damaged global human welfare on a massive scale and for many generations to come. With his brother Charles, he funded an extensive and highly effective disinformation campaign designed to protect the Koch

Yet, without diminishing the gravity of Epstein's despicable acts, it is important to recognize that David Koch damaged global human welfare on a massive scale and for many generations to come. With his brother Charles, he funded an extensive and highly effective disinformation campaign designed to protect the Koch industries' core business.

industries' core business. This endeavor has set back, perhaps catastrophically, any serious attempt to avoid the worst consequences of global warming. The existence of this campaign is well documented (see, for instance, this article in the *New York Times*: <https://www.nytimes.com/2019/08/23/opinion/sunday/david-koch-climate-change.html>) and involves, among other things, a concerted effort to misinform the public about climate science and to smear the reputations of dedicated climate scientists throughout the world. The campaign has been highly successful, judging from the rapid collapse (dating back at least to the administration of George W. Bush) of bipartisan support for measures to curb greenhouse gas emissions. As we watch the terrible conse-

quences of climate change unfold, from the rapid demise of glaciers to mass migrations to wildfires and more intense rainstorms and hurricanes, one name remains foremost in our minds: Koch.

MIT's response to David Koch's passing could not have been more different from its continuing response to the

Epstein revelations. In a glowing obituary published by *MIT News*, there is not one single mention of Koch's organized campaign of disinformation or its devastating consequences. Such an omission is not only an affront to members of the MIT community who care deeply about climate and the environment but also carries reputational risk beyond campus, especially when a major donor is also a lifetime member of MIT's governing board. Indeed, in a strong critique of MIT's obituary, the *Los Angeles Times* called it, accurately enough, a whitewash.

In this case our concern is not the philanthropy itself. In fact, the undersigned think that MIT was right to accept Koch's donation for cancer research and a childcare center though we must carefully

examine the reputational benefits derived from donors in making such gifts. The money has been used for excellent purposes, and as a bonus it thereby became unavailable for disinformation efforts. But it was wrong to whitewash Koch's legacy in the obituary and ignore his central role in accelerating climate change – for integrity and credibility's sake we should acknowledge the ethical price we paid in accepting his money and forever being linked to his legacy.

These recent events bring to the fore the difficult and delicate question of the ethics of accepting certain donations to our mission, especially now when so much of what we do depends on such donations. On the one hand, we cannot and should not hire investigators to pry deeply into the personal lives of everyone who donates to MIT. On the other hand, we cannot accept donations from known criminals. In between these two straightforward extremes lies a gray area that we also have to deal with on a regular basis. At the moment, there seem to be few ground rules in play with decisions about whether to accept donations made behind closed doors on what appears to be an ad hoc, case-by-case basis with no meaningful input from the community. Yet every employee of MIT is a beneficiary of donations and by turning a blind eye to the source of donations we may be unwitting accomplices to the Epsteins and Kochs of this world. Shouldn't we at least have a serious discussion about the framework in which MIT solicits and accepts donations?

The world is watching us, and so are our students. One group of students, Fossil Free MIT, is organizing a campaign to rid the campus of the Koch name altogether

and called out MIT's hypocrisy in its relative treatment of the Epstein scandal and the Koch obituary. Whether or not one agrees with these students' tactics, we must be concerned with the impression made

MIT's response to David Koch's passing could not have been more different from its continuing response to the Epstein revelations. In a glowing obituary published by *MIT News*, there is not one single mention of Koch's organized campaign of disinformation or its devastating consequences. Such an omission is not only an affront to members of the MIT community who care deeply about climate and the environment but also carries reputational risk beyond campus, especially when a major donor is also a lifetime member of MIT's governing board.

on our students in condemning one donor for personal crimes and entirely overlooking the destructive transgressions of another, especially when the latter involves disinformation and attacks on science . . . the very antithesis of MIT's mission as an educational institution.

So, what should we do? MIT cannot and should not involve the community in every decision about every potential donation. But we can and should have a serious formal discussion about the ethics of accepting donations (and while we are at it, the ethics of investing) with the aim of providing at least some guidelines. The issue is complex and not amenable to simple decision trees, and it may all boil down to an uncomfortable calculus of the ethical costs and benefits of donations and investments.

We owe it to ourselves as faculty and to our students to undertake this difficult conversation, which could also set an example for other institutions with educational and charitable missions. Rafael Reif shared in a

recent email that the senior administration is "assessing how best to improve our policies, processes and procedures to fully reflect MIT's values." We welcome and support this action but urge the administration to go one step further and include the creation of a forum in which the whole community can engage in this conversation. ■

**Kerry Emanuel** is Co-Director of the Lorenz Center ([emanuel@mit.edu](mailto:emanuel@mit.edu));

**John E. Fernández** is Director of the MIT Environmental Solutions Initiative ([fernande@mit.edu](mailto:fernande@mit.edu));

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**Susan Solomon** is Founding Ex-Director of the MIT Environmental Solutions Initiative ([solos@mit.edu](mailto:solos@mit.edu));

**Robert van der Hilst** is Head of the Department of Earth, Atmospheric and Planetary Sciences ([hilst@mit.edu](mailto:hilst@mit.edu)).

## Report on the Faculty Classroom Survey Spring 2019

Mary Callahan

**THIS PAST SPRING**, the Registrar's Office, in collaboration with Institutional Research, prepared and administered a classroom survey to 798 lecturing faculty. The survey, last given in 2008, was updated to incorporate input from the Teaching + Learning Lab, the Office of Digital Learning, and the Sloan School of Management. Two hundred and nine of these faculty members responded.

The objectives of this survey were to:

- evaluate the current state of classrooms at MIT;
- assess how well the inventory aligns with teaching approaches;
- identify new strategies for overall design and development;
- collect input to update design standards for future renovations of classrooms and lecture halls;
- better understand technology needs to support current and future pedagogies;
- provide data to other relevant departments.

### Highlights

Almost three-quarters of respondents were very or somewhat satisfied with their classroom. The majority were able to teach in the classroom they requested and spent less than five minutes traveling to it from their office.

Approximately 70 percent of those surveyed regularly use a computer in the classroom and found that their space met their technology needs, though most indicated that there were not an adequate

Although the gap between the current and desired state of our classrooms is relatively small, there is always room for improvement. We have been adding additional electrical outlets as part of our recent renovations, and the current renovations will include movable furniture so that instructors can more easily transform their classrooms into active learning environments.

number of electrical outlets. While almost half of respondents indicated that it is important to have lecture capture technology in their classroom, 75% indicated that they are not interested in using it.

More than half of respondents conduct small group activities in the classroom, and while most believed that there is enough space for active learning, fewer thought that it was easy to rearrange the rooms to suit their teaching style.

### Next Steps

Although the gap between the current and desired state of our classrooms is relatively small, there is always room for improvement. We have been adding additional electrical outlets as part of our recent renovations, and the current renovations will include movable furniture so that instruc-

tors can more easily transform their classrooms into active learning environments. We have also been researching new types of chalk, to address noted problems erasing chalkboards.

Our classrooms support multiple modes of teaching. In order to maintain, and improve upon, this level of satisfaction, we will continue to gather input and feedback from faculty to inform the renovation process. A comprehensive effort to invest in classroom maintenance and renovation greatly improves the teaching and learning potential of the Institute.

If you have any questions or comments, please feel free to reach out to me. The full results of the survey can be found at <https://tableau.mit.edu/#/views/2019ClassroomSurveySummary/ProjectDetails>.

See M.I.T. Numbers (back page) for some survey results. ■

**Mary Callahan** is the Registrar and Sr. Associate Dean ([callahan@mit.edu](mailto:callahan@mit.edu)).

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## New Atlas Process Paves Way for Supporting Undergraduate Research Innovation

Lesley Millar-Nicholson  
Ian A. Waitz

**STARTING IN FALL 2019**, all undergraduate students applying for the Undergraduate Research Opportunities Program (UROP) will be asked to sign an Inventions and Proprietary Information Agreement (IPIA). This is not a change to MIT's Ownership of Intellectual Property Policy. Students will continue to own their intellectual property except when working on government or third-party sponsored research projects, using significant MIT funds or facilities, or in other limited circumstances (for example, a Beaver Works course).

While signing and collecting the IPIA (*MIT Policies and Procedures* 13.1.4) is not new, the move to incorporate the IPIA

form into Atlas as part of the UROP application process is. The benefits of this process change are threefold:

[1] Improved IPIA collection ensures that MIT is complying with U.S. government and sponsored research requirements when the work involves undergraduate researchers.

[2] The Atlas form will remove the burden of IPIA collection from faculty and staff.

[3] Interacting with MIT undergraduate students as they pursue research opportunities provides a touchpoint for educating them on the development and ownership of intellectual property.

Faculty are encouraged to talk with students who are interested in UROPs or completing UROPs in their research group about the importance of appropriately identifying and protecting intellectual property, while emphasizing that this new practice is not a change to our policies or to the environment for undergraduate innovation and entrepreneurship that exists on campus. ■

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**Lesley Millar-Nicholson** is Director, Technology Licensing Office ([lesleymn@mit.edu](mailto:lesleymn@mit.edu));

**Ian A. Waitz** is Vice Chancellor for Undergraduate and Graduate Education ([iaw@mit.edu](mailto:iaw@mit.edu)).

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## Nominate a Colleague as a MacVicar Faculty Fellow

**PROVOST MARTIN SCHMIDT IS** calling for nominations of faculty as 2020 MacVicar Faculty Fellows.

The MacVicar Faculty Fellows Program recognizes MIT faculty who have made exemplary and sustained contributions to the teaching and education of undergraduates at the Institute. Together, the Fellows form a small academy of scholars committed to exceptional instruction and innovation in education.

MacVicar Faculty Fellows are selected through a competitive nomination process, appointed for 10-year terms, and receive \$10,000 per year of discretionary

funds for educational activities, research, travel, and other scholarly expenses.

The MacVicar Program honors the life and contributions of the late Margaret MacVicar, Professor of Physical Science and Dean for Undergraduate Education.

Nominations should include:

- a primary nomination letter detailing the contributions of the nominee to undergraduate education,
- three to six supporting letters from faculty colleagues, including one from his or her Department Head if the primary letter is not from the Department Head,

- three to six supporting letters from present or former undergraduate students, with specific comments about the nominee's undergraduate teaching,
- the nominee's curriculum vitae,
- a list of undergraduate subjects, including the number of students taught, and
- a summary of available student evaluation results for the nominee.

For more information, visit [registrar.mit.edu/macvicar](http://registrar.mit.edu/macvicar) or contact the Registrar's Office, Curriculum and Faculty Support at x3-9763 or [macvicarprogram@mit.edu](mailto:macvicarprogram@mit.edu).

**Nominations are due by Friday, November 15, 2019.** ■

## Hayden Renovation Update: Key Dates for the Fall

Chris Bourg

**PLANS FOR THE HAYDEN LIBRARY** renovation are proceeding apace; our vision for a more inclusive and accessible library space for MIT that enables more learning, research, and interaction is taking shape. I look forward to sharing the designs with the community this fall.

Throughout the summer, we have been busy planning, moving staff, and readying for the library's temporary closure in December, so that we can minimize disruption during the fall term. We remain committed to supporting the research and study needs of the MIT community while Hayden is closed. We are providing access to collections and services accessible at other library locations on campus and via our partnerships with Harvard Library and other Ivy Plus institutions. You can find further details about services and collections at other MIT libraries and about accessing Harvard and other area libraries – for browsing and borrowing – at [libraries.mit.edu/hayden-renovation](https://libraries.mit.edu/hayden-renovation).

Here are some important dates to note for the fall term:

### **October 9: Register for Harvard Library privileges**

All MIT community members can visit and borrow from Harvard simply by registering. We have arranged for on-site registration at Hayden Library on October 9, 10 am – 2 pm. Just bring your MIT ID and government-issued ID, and log into Borrow Direct via Touchstone; then you can go directly to the Harvard card office (Smith Center) to get your borrowing card. You can also visit Harvard's Privileges Office and ID office at your

convenience. Learn more at [libraries.mit.edu/harvard](https://libraries.mit.edu/harvard).

### **November 1 and 15: Reserves request deadlines**

The deadline for the Libraries to put materials on reserve for the fall 2019 term

is November 1. The deadline to request materials for IAP and spring 2020 course reserves is November 15. We recommend MIT faculty and staff submit their course reserves requests as soon as possible in advance of the Hayden closure to ensure we can provide timely access to requested materials. Learn more at [libraries.mit.edu/reserves](https://libraries.mit.edu/reserves).

### **December 15: Access to Hayden general collections closes**

From December 15 until fall 2020, we cannot provide access to book collections in the basement. I shared the reasons for this decision back in June; you can read them at [libraries.mit.edu/hayden-renovation](https://libraries.mit.edu/hayden-renovation). Access to more than 90% of the materials in the Hayden basement will continue to be available from Borrow Direct and other sources. Use our Ask Us service ([libraries.mit.edu/ask](https://libraries.mit.edu/ask)) at any time if you have trouble locating what you need.

### **December 19: Access to Hayden study spaces closes**

Reading room and 24/7 space will be accessible through closing time on December 19.

Throughout the summer, we have been busy planning, moving staff, and readying for the library's temporary closure in December, so that we can minimize disruption during the fall term. We remain committed to supporting the research and study needs of the MIT community while Hayden is closed.

### **December 20 – Fall 2020: Access to all of Hayden closed**

Hayden Library will be closed during the renovation starting at closing time on December 19. We will reopen when the renovation is complete, sometime in the fall of 2020. During this time, the library and the collections will not be accessible.

We are grateful to our partners in Facilities and Campus Planning who have helped us to minimize the time needed for the project so that Hayden will be closed for a single semester. Thank you for your patience during the closure and for your support for this renovation that promises to improve the Hayden Library experience for all. If you have questions about the renovation, please contact the project team at [space-lib@mit.edu](mailto:space-lib@mit.edu). ■

**Chris Bourg** is Director of Libraries  
([cbourg@mit.edu](mailto:cbourg@mit.edu)).

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## A Case for Mid-Semester Feedback

### How faculty can check in on student learning in real time

Ian A. Waitz

**FACULTY AND INSTRUCTORS ARE** likely most familiar with end-of-term evaluations. While incredibly useful, they are not designed to address a need I've heard about from many students: the ability for an instructor to make a few tweaks or changes *as a class is running*.

The collection of mid-semester, formative feedback from students can be an extremely effective way to gain targeted and specific information about what aspects of the subject support their learning and which aspects hinder (or do not support) their learning.

It can be relatively quick and easy to incorporate these evaluations – which can include just three or four questions. For example:

1. What in the class so far has helped your learning the most?
2. What in the class so far has hindered your learning?
3. What can I do to improve your learning in the subject?
4. What can you do to improve your learning in the subject?

Additional guidance and templates can be found online (<https://sites.google.com/view/mid-semester-feedback/>). At appropriate junctures you can ask students to

respond to paper-based questions in class or use digital tools (like Qualtrics) to gather feedback. Keep it simple. Be sure to make sure that student feedback is kept anonymous.

Perhaps most important, the act of providing feedback to instructors prompts students to reflect on their learning in the subject, and to consider how their own behaviors in the class are impacting the learning process. This metacognition is crucial for students' growth as learners.

This practice offers numerous benefits for those teaching. For example, mid-semester feedback is intended solely for the instructor for the purpose of readjusting the current offering of the subject to improve student learning. It allows instructors to make considered decisions about potential changes to the subject in response to the students' feedback – again, in real time.

Perhaps most important, the act of providing feedback to instructors prompts students to reflect on their learning in the subject, and to consider how their own behaviors in the class are impacting the learning process. This metacognition is crucial for students' growth as learners.

Some MIT faculty and instructors already solicit and use feedback from their students throughout the semester via MUD cards, exit tickets, and/or their own mid-semester feedback surveys – and to

them, I say, keep up the great work.

Finally, my office will host a lunch (likely during IAP 2020) for faculty and instructors who wish to discuss lessons learned from mid-semester feedback.

Thank you for all that you already do for our students and for being open to trying new experiments. If you would like some help getting started with mid-semester feedback, I encourage you to call upon the experts in the Teaching + Learning Lab. ■

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**Ian A. Waitz** is Vice Chancellor for Undergraduate and Graduate Education ([iaw@mit.edu](mailto:iaw@mit.edu)).

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### MIT-Nepal Initiative

Ravel and Weinberger, from page 1

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began to collect money to help their countrymen and women. They also contacted President Reif to request that MIT organize a more durable effort to help. As a result, the Administration authorized the MIT-Nepal Initiative. We published an article detailing the first six months of our activities in the November/December 2015 issue of the *Faculty Newsletter*. The current article is a follow-up to that report.

Over the last several years we have undertaken projects with Nepali partners in the areas of WASH, Housing, and Education. This work has been generously supported by the MISTI-India Program, D-Lab, the Abdul Latif Jameel Water and Food Systems Lab (J-WAFS) and the Deshpande Center, the Abdul Latif Jameel World Education Lab (J-WEL), the Center for Art, Society, and Technology (CAST), and the Office of the Associate Provost for International Affairs.

### Our Mission, Past Projects

Much of our activity in the first few years of the Initiative focused on defining our mission and identifying partners on campus and in Nepal. In terms of our mission, we quickly settled on two criteria. First, we wished to undertake projects that would benefit the people of Nepal, who live in varied cultural and economic settings in cities and rural areas. Second, we wanted to fashion projects that would provide meaningful educational opportunities for members of the MIT community. We wanted to marshal the rich intellectual resources of the Institute to attack problems in Nepal, of course. But we also wanted to expose our researchers and students to the people of Nepal, to their warmth and insights, and to the geographical and biological treasures of one of the most diverse countries on the planet.

Fortunately, the MIT community responded to our call with typical generosity and creativity. One of our earliest



**Evan Denmark '17, traveled to Nepal over IAP 2017 to make a short video about the Bloom Nepal School, founded by Ram Rijal '12: <https://www.youtube.com/watch?v=F3zxualjTq0>**

efforts paired a research group in D-Lab led by Dr. Anish Paul Antony with engineering colleagues at Kathmandu University. The D-Lab group was interested in extending work they had done in India on affordable and sustainable home insulation to Nepal. Over the last two IAP terms, Dr. Antony has taken student teams to Kathmandu, where they have undergone training with teams of faculty and students at Kathmandu University. Once acquainted with each other, these groups have traveled to a rural village northeast of Kathmandu, where the teams have interviewed villagers about their energy use and collected data about energy loss in private homes. The teams have also studied gender dynamics and decision making in village families and in the community as a whole, in order to better understand how to craft usable technology that the residents will adopt. In January 2019 the team installed home insulation fashioned from local materials. This team also has been in close contact with a group in the Building Technologies unit in Course 4 that has been conducting research into improving the performance of low-cost reconstruction housing in a village near Gorkha, a town to the west of the Kathmandu Valley.

Education is another field in which we have been active. With support from MISTI-India and other sources, several MIT undergraduates of Nepali origins have returned to towns and villages in Nepal to develop curricular innovations for students in the PK-12 grades. These have included the establishment of a computer lab in a rural grade school in the Solukhumbu district, an area in the foothills of Mt. Everest; a curriculum on sanitation and hygiene for grade schoolers and their parents in the public schools of Pokhara, the second largest urban area in the country; and a program in science, math, and humanities in a private school in Kathmandu that emphasized interactive and experiential learning strategies. A detailed account of each of these programs can be found on the MIT-Nepal Initiative website. We are currently synthesizing the lessons learned from these experiences in an effort to scale up our educational initiatives so that they can have a wider impact, as we indicate below.

### Current Projects

**Water-Testing and Sanitation:** In spring 2015, MIT Associate Provost Richard Lester provided a small grant to assemble and ship 2,000 water-testing kits to Nepal,

where ENPHO, a Nepal NGO, used them to test water found in water trucks and food carts in the Kathmandu Valley. Based on this initial, successful collaboration, the MIT-Nepal Initiative, ENPHO, and its social business spinoff EcoConcern began a project in 2018-2019 to build manufacturing capacity and marketing networks to sell improved versions of the kits in Nepal and elsewhere in South Asia. This work is being funded by a “Solutions” grant from the Abdul Latif Jameel Water and Food Systems (J-WAFS) Lab and MIT’s Deshpande Center. In fall 2018, Ms. Susan Murcott, a D-Lab lecturer, constituted a team of students and staff to pursue the project. After preparatory work during the semester, Ms. Murcott and five students went to Nepal during IAP 2019. As result of this collaboration, ENPHO and EcoConcern have developed the “ECC vial” and incubation kits to detect *E. coli* bacteria and other contaminants in public water sources. Production and marketing of the kits will begin in Nepal in October 2019. J-WAFS and the Deshpande Center have renewed the Solutions grant for the 2019-2020 academic year. This second year of funding will allow the MIT team under Ms. Murcott’s leadership to continue to work with our Nepali partners, and to explore manufacturing and sales opportunities elsewhere in South Asia.

**Education:** Building on the work done in this area by our students, as discussed above, the MIT-Nepal Initiative is now looking to create a more comprehensive, scalable contribution to K-12 education in Nepal. In spring 2019, the Initiative received a grant from the Abdul Latif Jameel World Education Lab (J-WEL) to develop and test online learning games for sixth through eighth grade math and science, in collaboration with the Open Learning Exchange (OLE) Nepal and the Bloom Nepal School. Two MIT students, Abishkar Chhetri and Meghana Vemulapalli, spent the months of June and July 2019 at OLE Nepal, working with game designers and developers to identify ideal platforms and learning pedagogies to integrate into games. OLE Nepal col-



In summer 2018, four MIT Interns led a Global Startup Lab (GSL) program in Kathmandu, in collaboration with Kathmandu University and Ncell, a Nepali cell phone service provider. The interns, pictured in the Thamel neighborhood of Kathmandu, are from left to right: Suresh Rajan, Hem Chaudhary, Adhya Rajan (daughter of Suresh), Jackie Xu, Sisam Bhandari.

leagues will travel to MIT in October 2019 to continue this partnership.

**Ethnomusicology:** In September 2019, the MIT-Nepal Initiative will welcome to campus Dr. Lochan Rijal, an ethnomusicologist at Kathmandu University. Dr. Rijal’s visit will be supported by a Visiting Artist grant from the Center for Art, Science, and Technology at MIT (CAST). Originally a Nepali pop musician, he completed an ethnomusicology doctorate at Kathmandu University and UMass Amherst in 2014 and has been working with Kathmandu University students for the last several years to preserve and foster ethnic musical traditions throughout Nepal. He is currently restoring a historic heritage site that was damaged in the April 2015 earthquake. When completed, this temple complex will feature performance spaces, studios, classrooms, libraries, and instrument collections. While at MIT, Dr. Rijal will offer a public concert of Nepali music and his original compositions played on indigenous instruments. This event will take place on Saturday, October 5th, in Lobdell Court, MIT Building W20. It will be open to the MIT community, Nepali student

groups at other local universities, and the greater Boston Nepali community. For more information about the concert, and Professor Rijal’s residency at MIT, see the CAST website.

### Going Forward

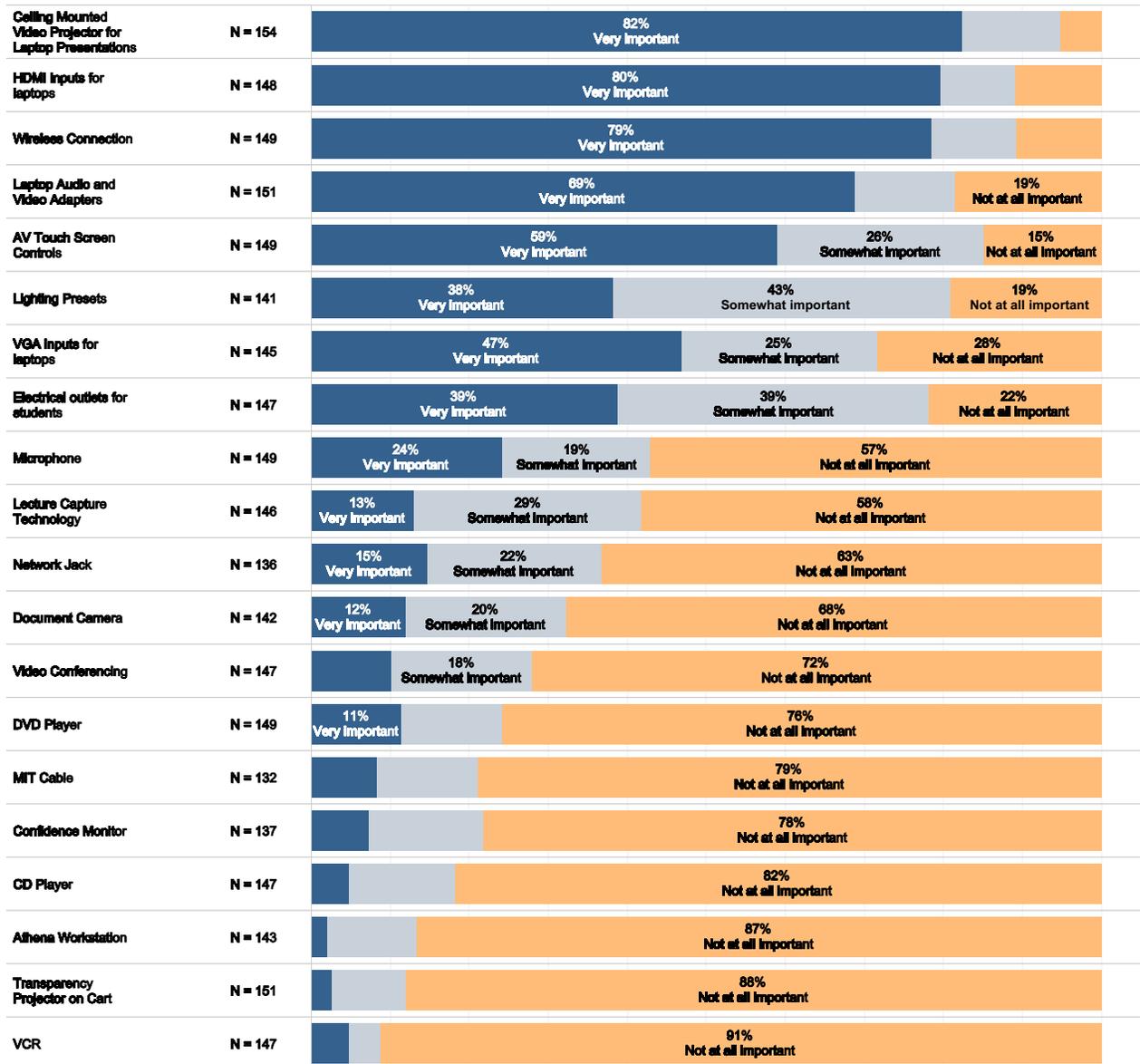
Four years on, we are pleased that we have been able to pursue projects that have helped the people of Nepal and provided excellent research opportunities and life experiences to members of the MIT community. We are immensely thankful to our funders and supporters at MIT, and to our partners and collaborators in Nepal. We look forward to continuing the work outlined above, and we are always interested in new ideas and projects. To learn more about the Initiative, please visit our website. If you would like to get involved, please contact the Faculty Lead on the MIT-Nepal Initiative, Professor Jeff Ravel. And if you are interested in supporting our work, we urge you to visit our donations page on the MIT Giving site. ■

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# M.I.T. Numbers from the Faculty Classroom Survey Spring 2019

How important is it to have the following in the classroom you teach in:



**Color Legend**  
■ Not at all Important  
■ Somewhat Important  
■ Very Important

Source: The Registrar's Office in collaboration with Institutional Research