Presidential Transition Advisory Cabinet (PTAC)

Public Report

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Introduction

On May 16th 2012, Provost L. Rafael Reif was announced as the 17th President of MIT, successor to then-President Susan Hockfield. On May 22nd, the leadership of the Undergraduate Association (UA) and Graduate Student Council (GSC) issued a student-wide public statement offering warm congratulations and welcome to President-elect Reif, thanking the hundreds of community members that played a role in shaping and defining the search process, and publicly announcing the intended formation of the Presidential Transition Advisory Cabinet, hereafter referred to as PTAC.

Unlike predecessors MIT Presidents Susan Hockfield and Charles Vest, Rafael Reif assumed the office of MIT President with significant knowledge of MIT after seven years as Provost, and extended tenure as a faculty member. Moreover, the MIT Presidential Student Search Committee produced a comprehensive report[1] which outlined clearly not only the desirable characteristics of a future president but also articulated the current campus climate with regards to the most salient campus issues, as identified by students. Thus, unlike other bodies like Susan Hockfield's Student Advisory Board (SAB), PTAC would focus on identifying salient present and future campus issues and proposing constructive paths forward rather than explaining campus culture.

On June 11th, leaders from the GSC and UA met with President-elect Reif to officially propose general operating principles and membership, and PTAC was officially formed at this meeting.

Membership

PTAC was decided to consist of 4 undergraduate members and 4 graduate members. The presidents of the GSC and the UA were to be ex-officio members and the other 6 members were selected through the well-established GSC and UA Nominations Process. Table 1 lists the membership of PTAC; short bios for each member are attached in Appendix II.

Table 1: Membership of PTAC (in last-name alphabetical order)

Graduates	Undergraduates
Bryan Bryson	Jonté Craighead (UA President)
Aalap Dighe	Alex Ghaben
Angela Kilby	Catherine Olsson
Brian Spatocco (GSC President)	Eduardo Russian

It was decided that PTAC would be an organizationally flat body, with no chair and with every member having an equal vote and say in the output of this body.

[1] http://gsc.scripts.mit.edu/wptest/wp-content/uploads/GSCUA%20Presidential%20Search%20-%20Preliminary%20Report.pdf

Scope and Meeting Schedule

PTAC was convened to serve three aims:

- To *identify* MIT-wide issues and opportunities,
- To act as a *confidential sounding board* to the President, and
- To *provide input* into the long-term vision for students' academic, research, and community lives on campus.

In pursuit of these aims, PTAC decided to organize its investigations into the categories of **Educational Experience**, focused on classroom and non-classroom learning at MIT; **Community**, focused on the qualities, structures, and systems of the MIT community, and **Vision and Strategic Planning**, focused on planning a residential campus of the future. Our findings are based on student feedback solicited through online surveys, discussions with a number of students as well as pre-existing reports on various topics. We used our experiences as student leaders, as well as our understanding of MIT to put the information we read and gathered into context.

PTAC was charged to operate August 2012 to December 2012. In addition to an introductory meeting, PTAC had six meetings with President Reif with two meetings each for the three themes mentioned above.

This report aims summarize the findings this body presented to President Reif in those meetings.

Disclaimer

It is important to note that all opinions expressed in this document are the collective views of the eight students serving on PTAC, and do not in any way represent the views of the Office of the President of MIT or of any organizations individual PTAC members are affiliated with.

PTAC has attempted to the best of our ability, to base our opinions on the views of the student body as a whole. The statements in this report are based on interviews and discussions with various students, numerous historical reports, as well as the collective experience of PTAC members who have all been involved in diverse aspects of student life at MIT (see Appendix II for member bios).

The members of PTAC highly encourage those with additional resources to conduct further study of the claims outlined in this report.

The members of PTAC would like to thank the students, alumni, faculty, and members of the MIT community who offered their opinions (both formally and informally) and helped shape this report. PTAC would also like to thank President Reif, for engaging the student body to help shape his vision of MIT for the future. Thank you.

Summary of Recommendations

Theme 1: The MIT Educational Experience

In this theme, we explored topics pertaining to the educational experience of students at MIT. The following are areas we explored with a summary of our recommendations.

Advising and Mentorship

We defined advising as formal guidance on coursework and research, whereas we defined mentorship as informal advice and guidance.

Some problems we identified with undergraduate advising were the **inconsistency of advising quality** across programs and across advisors, lack of student input into **choice of advisors**, **insufficient frequency of contact** between students and advisors and the lack of **evaluation of and feedback** mechanisms on advising performance. The main issues and trends we identified were significantly in line with the findings of the **2005 Report on Advising Policy** at MIT issued by the UA Student Committee on Educational Policy[2].

With regards to graduate advising, students point to the actual advisor (not the structure of the department's advising strategy) as the most critical aspect of their advising experience. Students often note that **effective communication with their advisors** is a critical pillar in advisor-advisee relationships. Student concerns with graduate advising include the **lack of incentive structures for faculty** to prioritize advising, **very little accountability** of advisors, as well as **no formal evaluation** of advising performance by departments or by the Institute.

Students at MIT have a diverse array of positive mentoring relationships. For undergraduates, the most fruitful sources of mentorship are **course administrators, dorm-mates, UROP advisors, alumni, and industry connections**. A frequently suggested improvement for mentoring at the Institute that we heard was starting a **structured program to connect freshmen with upperclass mentors**.

Our **recommendations** in the topic of advising and mentorship are:

1. Create an **advisor evaluation system** (similar to class evaluations) for both academic and research advisors in order to enhance accountability, encourage best practices and to enable students to make informed advisor choices.
2. Consider starting a **formalized peer mentoring structure** to pair new students with more experienced ones.
3. Standardize the process for **undergraduate advisor matching** in all departments

[2] http://web.mit.edu/committees/cup/public-docs/A&Mreportfinal.pdf

Non-traditional Learning

We defined non-traditional learning as learning that occurs outside the formal setting of a classroom or research laboratory, and challenges students to learn outside the bounds of their curriculum.

One of the most rapidly growing forms of non-traditional learning are MIT's online learning initiatives. There seems to be an **overwhelmingly positive student sentiment about OCW**. On the other hand, most students in general feel they **do not have enough information to have an opinion about MITx**. A strong internal publicity campaign regarding MITx in the near future is going to be vital in getting student buy-in for this initiative. Some concerns we heard with MITx were **devaluation of the MIT brand** and the **successful interfacing of graduate TAs** with these online initiatives.

Students, mostly undergraduates, are **very positive about the MISTI** program. The **IAP[3] and UROP** concepts are also viewed extremely positively by students, although for many graduate students IAP tends to be a more intense research work period. Undergraduates generally have very positive experiences about the **freshmen learning communities**. **Student groups** are another important source of non-traditional learning for students and provide a way for students to learn soft skills such as delegation, mentorship, logistical planning, time management, and work-life balance.

Our **recommendations** in the topic of non-traditional learning are:

1. Improve signaling and internal publicity about MITx
2. **Maintain and enhance** the wide-range of successful **non-traditional learning programs** such as MISTI, G-Lab, UROP and IAP
3. Consider expanding freshmen learning communities.
4. **Encourage graduate student participation** and faculty buy-in for existing non-traditional learning resources on campus, including IAP, student groups and extracurriculars.

Professional Development

We defined professional development as activities and programs designed to prepare students for their future careers after graduation.

For undergraduates, programs such as the Freshman/Alumni Summer Internship Program (**F/ASIP**), the Undergraduate Practice Opportunities Program (**UPOP**), the Gordon Engineering Leadership (**GEL**) program are **highly rewarding** but their curriculaedo not adequately address the full spectrum of undergraduate career paths. With programs like GEL, membership is limited

[3] We defer to the IAP subcommittee report of the Faculty Policy Committee (http://web.mit.edu/faculty/reports/pdf/iap.pdf) for a more comprehensive review of IAP

to students within the school of engineering and biased towards those entering industry upon graduation. Students who are interested in academia, graduate school, or entering a non-engineering field like business do not have the same professional development opportunities. Another undergraduate concern was that **CI-M** experiences vary tremendously between courses and they **do not teach enough career-relevant communication skills**.

For graduates, professional development activities are more decentralized and department-specific. There is a concern amongst students regarding the **lack of emphasis** in most departments on certain **skills needed (such as teaching or mentorship) for careers in academia**. With entrepreneurship gaining popularity in recent years, graduate students also feel like **MIT's intellectual property policies** should be reviewed. Current immigration laws also inhibit 40% of MIT's graduate students who are international from participating in entrepreneurial activities while at MIT; students have expressed the desire for MIT to demonstrate greater visible leadership nationally in **immigration reform for advanced degree holders**.

A cause for concern is the **underutilization of the GECD office**; for example, from 2004 to 2011 non-utilization of the GECD office by graduate students has increased from 67.7% to 78%. According to the 2013 Quality of Life survey, 50% of graduates and 25% of undergraduates are not aware of the existence of GECD. Additionally, some undergraduates are unhappy that Career Fairs and GECD resources are disproportionately focused on Course 6 and were particularly **lacking in support for careers in HASS majors**.

Our **recommendations** in the topic of professional development are:

1. **Improve visibility of GECD**. Consider implementing "departmental professional development officers" which oversee only a handful of departments at a time (similar to the MIT Libraries model).
2. Evaluate the efficacy of CI-Ms for teaching career-relevant communication skills.
3. Research departments with a **one-term teaching requirement**; consider expanding this requirement across schools.
4. Offer **"academia skills" classes** on grant writing, group management, supervising, and teaching to senior graduate students and young faculty.
5. **Expand UROP on the graduate side** by offering mentorship classes and requiring deliverables of graduate mentors. Consider providing credit to graduate mentors.
6. Provide an **inventor's guide of "who owns what?"** to help students understand IP rules at MIT.
7. Be a visible and active voice for **advanced degree holder immigration reform** at the federal level.

Well-roundedness

Students seem to view well-roundedness as occurring along two broad axes: **personal fulfillment** and exploration and **development of professional skills**. Below we describe student satisfaction for various aspects at MIT that promote well-roundedness.

Undergraduate satisfaction with the HASS requirement is reasonably high. However, cross-disciplinary well-roundedness, especially across engineering fields, is perceived to be lacking. Student activities, student government and residential communities such as dorms and FSILGs are spaces where students develop a well-rounded set of skills, especially in leadership and collaboration. Entrepreneurial and risk-ownership culture encourage students to innovate and self-determine how to successfully create value. Along the way, students develop a host of ancillary skills necessary for such complex, open-ended pursuits. Global experiences through MISTI, D-Lab, G-lab, etc. seem to have high satisfaction, but are not often mentioned in the context of well-roundedness.

Graduate students often seem to value well-roundedness personally, but many do not seem to necessarily expect that their graduate education would provide this explicitly. Some believe that well-roundedness for graduate students means that students should be able to **place their research in the context of its relevance to society**, but this does not seem to be an educational goal in most departments.

Our **recommendations** in the topic of well-roundedness are:

1. **Evaluate the REST requirement**, or explore new curricular approaches to facilitating cross-disciplinary, upper-level exploration in science and engineering.
2. Investigate **innovative options to broaden students' backgrounds at the graduate level**, such as the **minor program** incorporated in the Department of Mechanical Engineering curriculum.

Theme 2: Community

In this theme we sought to explore the most fundamental building blocks of the MIT community. We did this by synthesizing student feedback and grouping those most common responses from surveys and interviews into one of three areas: **people**, **places**, and **resources**. Though this framework helped us to logically segment various spheres of student community, we want to emphasize that all three areas are deeply intertwined and that there is no piecewise way to reconstruct the truly organic ethos of the student body. Attempts to recreate the MIT community by simply building the physical places, resources, and interconnections would likely arrive at a very different place than the MIT that we currently call home.

People

Students strongly identify the Institute's values of diversity, curiosity, meritocracy, and collegiality in their own experiences. In order to honor these shared values, students also care deeply about how we communicate with each other, both inside our communities and with those who teach us, and with those who make decisions that affect us. Within the student community, students place a premium on being able to **intellectually question, debate, support, or challenge any and all ideas** in much the same manner that we are expected to with our intellectual pursuits. Freedom of speech is an important factor in fosteringmeaningful scientific and social inquiry.

Students also care deeply about their interactions with faculty and often look to these **senior academics as both academic and personal role models**. Thus, students want faculty to communicate through their actions those values that are most important for life inside and outside the walls of academia.

Finally, strong relationships between students and administration are essential for a healthy student community. Rather than reiterating the position outlined in the CJAC report on student-administration relations, we will touch only briefly on one facet of student-administration interaction. MIT student life is not a homogeneous experience, but rather a heterogeneous mosaic of autonomous residential cultures. Administrative initiatives designed to improve student life and ensure student wellness are sometimes viewed with distrust by students. A successful partnership between students and administrators on these issues requires communication, cultural awareness, mutual respect, and recognition of shared goals. The heterogeneity and autonomy of the student experience not only fuels our innovative excellence and consistently attracts bright, curious, ambitious students; it also fosters cultures and inter-generational connections that are a profound source of support, mentorship, and emotional stability for many students. **Attempts to homogenize from the top-down or systematically de-risk the enterprise of student life could have devastating consequences** on the MIT community. By contrast, solutions that are designed in collaboration with student leaders as early

as the problem-identification stage, and are tailored to the unique context of MIT's cultural mosaic, are more likely to successfully and sustainably foster student wellness, enrich student life, and support a healthy culture of risk-taking and self-determination.

Our recommndations in the topic of Community-People are as follows.

1. **Protect freedom of speech and expression** as it is a valuable part of students' intellectual and social development. Ensure that it is not sacrificed simply to avoid politically sensitive or controversial topics.
2. Identify and support faculty that champion positive and healthy qualities of productive individuals.
3. Give stakeholders a **problem statement** over a solution set as a productive start to student engagement that respects administration's right to make decisions. Students should have opportunities to provide feedback during the problem-identification stage of problem-solving, rather than after a proposed solution has already been drafted.
4. The administration should relax slightly from its culture of **confidentiality**. , Simultaneously, students must practice more discretion, balance, and respect in how and when they publicly discuss concerns.
5. The Chancellor and DSL should **clearly articulate their goals and intentions for student life** in a way thatincorporates an understanding of the unique heterogeneity and autonomy of the student experience.

Spaces

There is consensus amongst undergraduates and graduates that the spaces in which they live, work, and play have enormous impact on the vitality and sustainability of their communities. Amongst the **undergraduate** population, **living spaces are by far the most sacred and valuable space** for creating strong networks and connections. It should also be noted that undergraduates feel very strongly about the **autonomy and personality of their living groups** (dorms & FSILGs) and as a result view with great skepticism recent institute-wide policies that are perceived as interfering in a top-down manner with the existing system of self-determination.. On the **graduate** side, although many view their residential experiences very positively, most look to their **departments or labs** to provide their primary networks. This is most likely the result of nearly 2/3 of graduate students living in a dispersed and unconnected manner off-campus. In addition to living spaces, students also view social, recreational, and study spaces as playing a critical role in framing their community interactions. Overall, although MIT does make significant effort to satisfy the needs of undergraduates and graduates, the most common critiques generally have to do with the need to update the offerings to stay in line with the evolving needs and schedules of students.

Our recommendations in the topic of Community-Spaces are as follows.

1. Expand **dining options in the student center**and **late-night food choices in the area around Stata**.
2. Expand **collaboration spaces** as well as **large flexible programmatic spaces**, as students are increasingly working collaboratively for both coursework and extracurricular activities.
3. Expand simple and flexible **study spaces** commensurately with enrollment, as our growing student body is increasingly running out of quiet room to study.

Resources

We have found that the most important questions to consider when thinking about resources are whether they are **communicated clearly**, **running effectively**, and **utilized sufficiently**. A lack in any of these three criteria is enough to render the resource useless to the community. The largest barriers to ensuring that resources are relevant and useful are the cultural misconceptions or stigmas attached to utilizing a resource, particularly health and wellness resources, as well as the lack of serious impact assessment on what works and what does not. On the consumer end, users of resources need to be frequently and accurately informed about the process and outcomes of seeking support and effort needs to be spent in addressing the one-upsmanship culture. On the supplier side, MIT needs to take more seriously the review of existing resources, be visionary with growing those that work, and be bold by eliminating those that underperform.

1. Create a **Standing Committee on Mental Health** that directly draws on Presidential level support.
2. Implement a **feedback-gathering mechanism** for each individual support structure at MIT to identify areas of unmet need, and areas for improvement.
3. Work to **resolve common campus confusions and misconceptions** surrounding support resources. One recommendation is to maintain clear, concise, and regularly updated websites for each support office.
4. Increase awareness and utilization of campus support resources through initiatives like MITogether and by **removing campus stigma** surrounding asking for help. This shift in campus attitudes should be guided by a collaborative body composed of faculty, students, administrators, and support providers.

Theme 3: Residential Campus of the 21st Century

In this theme, PTAC took a longer-term view, addressing the broad-reaching goals, changes, and initiatives that will change the face of the Institute as a residential university in the next several decades. In examining this question, we address three areas:

- **Global Impact and Partnerships**, including study abroad and other educational opportunities; international development and global impact; and partnerships with international institutions.
- **Space Planning and Physical Campus,** including community and academic spaces.
- **Online Education and the Future of Residential Learning**, including the questions of what skills students will be seeking; what skills and knowledge we should provide; and *how* we should provide educational content.

Our recommendations in these three areas are as follows.

Global Impact and Partnerships

- Promote and foster **study abroad** experiences, while maintaining a balance between high educational quality and broader study-abroad options
- Continue to apply our core strengths to global challenges, for the **betterment of the MIT community** as well as the state of **international development**
- Solicit student input on major international partnerships, if such partnerships have the potential to impact the MIT brand or the student academic experience.
- Determine whether or not **MIT's core values** should play a role in developing international partnerships.
- Strengthen ties with **international alumni.**

Space Planning and Physical Campus

- Large Event Spaces
    - Protect current assets, or investigate the creation of new flexible and commensurate **spaces, for student programming, performance, and conferencing**.
- Kendall Entrance and Sloan Connection
    - Explore opportunities to improve the **entrance to the MIT campus via Kendall Square**, both aesthetically and metaphorically.
- Residential Spaces:
    - Address and prioritize the deferred maintenance of current MIT residences.

    - Evaluate and act preemptively to ensure **sufficient affordable housing** for graduate students that is readily accessible.
- Student Centers:
    - Address the demand for renovations to the current student center
    - Explore the **feasibility of a graduate student center**
- Academic Spaces
    - Design **classrooms to meet the needs of the 21st century** from both an infrastructure and design perspective.
- Evaluate strategies to provide students with **more access to laboratories** for both their own academic and extracurricular interests.
- Provide **more study spaces (both departmental as well as Institute-wide).**

Online Education and the Future of Residential Learning

- Develop a curriculum that prepares students to be members of a 21st century global workforce upon graduation. This requires both preparation to be **technically proficient and globally aware**.
- Explore **novel pedagogies for teaching** and evaluate the efficacy of the various pedagogies for the diverse student population.

Student Engagement

- **Re-invigorate the IdeaBank** as a tool to engage the MIT community around the challenges and opportunities that exist for the Institute over the next decade.
    - Enable community members to offer **feedback on any topic**, not just selected topics.
    - Implement a mechanism to guarantee a response to topics which enough people comment on, in the style of the **White House "We The People" petition page**.

Theme 1: The MIT Educational Experience

In this theme, we explored topics pertaining to the educational experience of students at MIT. Broadly, we sought to understand how students learn, what they need to learn to prepare them for their next career move, and how to support them in their learning objectives. We identified many potential sub-themes, from which we confined our scope to a smaller set of four sub-themes for further investigation – **advising & mentorship**, **non-traditional learning**, **professional development** and **well-roundedness**.

A brief summary of each sub-theme explored is listed below. In addition, we have included potential areas of further exploration, where we present some potential action items. Their impact and implementation would require further study, but they are presented in this report as a means to stimulate further discussion.

Subtheme: Advising & Mentorship

Both advising and mentorship involve the sharing of guidance and advice, but advising refers to a formal, assigned relationship used for "setting goals" and "evaluating obstacles," while mentoring often follows from an "organic relationship" focused on similar goals and backgrounds between a student and role model.[4]

Advising has been reviewed in numerous Institute reports and studies[5]. In the past seven years alone, three separate comprehensive surveys have been conducted to gather student opinion on undergraduate advising[6]. Although many recommendations have been made on the basis of these datasets regarding student opinion, many of the most challenging issues remain unresolved.

Mentoring is discussed less often and usually in the same section as advising, though there remain useful treatments of mentoring in some Institute reports.[7]

Undergraduate advising

Formal undergraduate advising encompasses not only academic advising, but also a variety of supplementary advising programs. *Freshman advising* may be either seminar-based or

[4] AAMC, Introduction to Advising: Advising vs. Counseling vs. Mentoring. https://www.aamc.org/services/cim/advisingstudents/182032/advising_vs_mentoring_vs_counseling.html
[5] 1998 Task Force on Student Life and Learning Final Report; 2002 CSL Whitepaper; 2005 Student Advisory Board Report; 2005 UA SCEP Report on the Advising Policy at MIT; 2008 UA CoE Report on Advising at MIT; 2011 Review Committee on Orientation Survey; 2012 Presidential Search Report
[6] 2005 UA SCEP Report on the Advising Policy at MIT; 2008 UA CoE Report on Advising at MIT; 2011 Review Committee on Orientation Survey
[7] 2005 Student Advisory Board Report; 2012 Presidential Search Report

"traditional" (one-on-one), and may or may not be Residence-Based (RBA). For some RBA dorms, students assigned to that dorm during the summer may not participate in the First Year Residence Exchange. *Departmental advising* is administered by each department, though usually students entering the department rank preferred advisors based on short descriptions. *Non-academic advising* includes UROP advising,as well as pre-professional advising such as pre-health and pre-law.

In the feedback gathered by members of PTAC, the most frequently reported experience is that advising quality is **inconsistent.** Students report that, of the advisors they have had, some have been great and many have been lacking. Many students reported experiences with advisors (especially freshman advisors) who **lack adequate understanding of Institute requirements** and policies. Other frequently identified suggestions for improving the advising experience included better student **input into choice of advisors**, **more frequent contact** between students and advisors, and a way to **provide feedback** on advisors.

We found it notable that the main issues identified from our investigations correspond strikingly well with the themes identified in the 2005 Report on Advising Policy at MIT issued by the UA Student Committee on Educational Policy ("SCEP"[8]). The report summarizes a survey of 10% of the undergraduate student body. Of the top four issues identified by SCEP in 2005, three of them—"Poor Adviser Knowledge Level", "Low Adviser Contact," and "Ineffective Evaluation Process"—also emerged as top themes from our investigation. The fourth theme from the SCEP report—"Lack of Consolidated Resources"—was also mentioned by a handful of students in PTAC's initial forays. In 2008, the SCEP conducted a comprehensive survey of 30.2% of the undergraduate student body about their advising experience, which confirmed and bolstered the 2005 results. Evidently, the problems that students report today with undergraduate advising are long-standing and chronic; fortunately, there exists a wealth of data about student opinion on the topic, inspiring hope in the possibility of well-informed, well-researched, and successful change.

Graduate advising

Graduate advising across departments typically involves a research advisor (for those conducting research) in addition to a coursework advisor. In some departments, these roles are filled by the same individual. The implementation of advising varies dramatically from department to department. Some departments' programs are intended to routinely benchmark progress, while other departments work in a more free-form implementation. Graduate students represent a diverse mix of students with a wide array of objectives and life situations, so it is important for the advising system to support many styles of advising to match the needs of different students.

For those graduate students with research advisors, students point to the actual advisor (not the structure of their department's advising strategy) as the most critical aspect of the advisor-

[8] SCEP has since been renamed to the Committee on Education (CoE)

advisee relationship. Students note that, like other relationships, effective communication with their advisors is a critical pillar in successful advisor-advisee relationships. Other contributing factors to the outcome of advising relationships are the overall advising style of the faculty, thesis project, and professional guidance.

A common advising-related concern for graduate students is that there is **very little accountability, and very few incentives**, for faculty to prioritize advising. Most graduate students are never asked to provide feedback about their advisor, or even whether they were comfortable with their advising situation.

Mentoring

Mentorship, though similar to advising, provides another means of providing guidance and advice to students. Mentorship describes a process for the informal sharing of knowledge and social capital relevant to the work, career, personal, and professional development. It involves informal communication between a person is who perceived to have more relevant knowledge (mentor) with someone who is perceived to have less (mentee). Several mentorship programs exist at MIT ranging from career mentoring facilitated by the Alumni Association to mentorship programs for women sponsored by Graduate Women at MIT (GWAMIT).

Undergraduates reported that many of their most fruitful sources of informal advice and mentorship were **course administrators, dorm-mates, UROP advisors, alumni, and industry connections** from summer internships. Course administrators were mentioned particularly frequently as vital sources of guidance when students' formal advisors were unavailable. Students emphasized that MIT's unique residential system—the opportunity to **choose one's living group** based on fit, and to live with students of all class years (including graduate student GRTs) —was vital in forging strong relationships with upperclassmen and alumni which develop into mentorship relationships.

Students mentioned a diverse array of positive mentoring relationships, but when discussing what could be improved, there was remarkable agreement: many students would like a more structured **program to connect freshmen with upperclass mentors**.

Suggested Topics for Further Exploration

There are many possible courses of action which might improve the state of advising and mentoring at MIT. Here we review several possible directions, inspired by past recommendations by the UA SCEP (CoE) in addition to our own investigations.

- **Requiring a set number of meetings** between advisors and advisees may foster more meaningful contact beyond signing paperwork.
- **Creating an advisor evaluation system** where students could enter comments and ratings. Such a system may create accountability and enable students to make informed advisor choices.

- **Standardizing the process for undergraduate advisors matching** for freshmen and upperclassmen in all departments could encourage greater compatibility between advisors' and advisees' interests and preferred advising styles.
- **Establishing a formalized peer mentoring structure** to pair freshmen with upperclassmen, and/or to pair new students within departments with experienced students, may establish more successful mentoring relationships.

Subtheme: Non-traditional Learning

MIT's vibrant and innovative environment has fostered a culture where learning happens not only inside the walls of a classroom, but also through a variety of alternative pathways. Here, we define **non-traditional learning** as learning that occurs outside the formal setting of a classroom or research laboratory, and challenges students to learn outside the bounds of their curriculum. Recent studies have shown MIT students are an increasingly diverse population with a broad set of experiences, interests, and career goals, and we believe that this correlates to an increasingly diverse set of learning styles.

The methods and means that students use to supplement their classroom learning are critical to assess because, though they might be considered "non-traditional" during our university years, such skills are often useful for cultivating life-long learners. Non-traditional learning teaches students how to learn without a textbook, to self-motivate, to use resources in new ways, and how to place their formalized education in a societal context.

Student Opinion

Student opinion on some non-traditional learning methods is listed below.

MIT's Online Learning Initiatives—OCW, MITx, edX

In general, there seems to be an overwhelmingly **positive student sentiment about OCW**. Some suggestions offered by students have included adding more recent content, so that every OCW course is complete and reflects material currently taught in the course.

Students have expressed similar hopes regarding the potential for MITx to change the future of education in the 21st century. Despite the broad societal implication of MITx, however, many students still do not have enough information yet to have an opinion on the MITx initiative. One student suggested to us that MIT should "improve messaging on campus about what MITx is, what its long and short term goals are, and how students can get involved." Yet a common concern for many students is the possibility of **MITx potentially "devaluing" the MIT degree**, especially once MITx certificates start being offered. Many in the graduate student community feel as if MITx will not affect them in the near future, but some have expressed concerns about how MITx would interface with departmental TA programs. For example, would MITx overburden TAs with the additional work of generating materials to be put online, in addition to their regular TA duties? In departments where TAs are required, would some students be forced to participate in an MITx TA instead of a traditional TA and thereby forego live interactions with MIT undergraduates?

International and Industrial Experiences

Students, particularly undergraduates, are **very positive about their MISTI and internship experiences**. One concern raised by graduate students was that while international opportunities such as MISTI and G-lab, or industrial experiences such as internships are extremely valuable, it is often **difficult for graduate students to take sufficient time away from research to**

participate in such activities. There may be a mismatch between what MIT states in its values for its graduate students in terms of industry or international experiences, and the support and encouragement graduate students receive from their advisors to pursue these experiences.

UROP, IAP

In general, undergraduates share **extremely positive opinions of the UROP program**. For graduate students, the UROP program could be improved by providing more formal training for UROP supervisors. For example, for first-time graduate student UROP mentors, could there be a workshop or seminar series about good mentorship and advising practices.

There is also **overwhelming support for IAP**[9]. IAP gives students the time and structure to broaden their interests, gain industry/research experience, and apply knowledge learned during the course of the academic year. Students also feel that IAP is a needed break from the pressures of an MIT education, without being completely disengaged from the learning process. In contrast, however, **many graduate students noted that IAP is a more intense work period** for them, because they are expected to increase their productivity with the influx of available undergraduate researchers and abundance of free time. We feel that the benefits of non-structured learning that occurs during IAP are not limited to the undergraduate population and that graduation student participation should be encouraged.

Freshman Learning Communities

Upon their entry to MIT, freshmen have the option to forego the traditional MIT educational model and participate in a smaller freshman learning community such as Terrascope, Concourse, Experimental Study Group, or Media Arts and Sciences. These smaller groups are **well received by freshmen**, and often have more interested applicants than spaces available. Students appreciate these groups because they feel that they receive more individualized attention from instructors, and learn valuable lessons about how to work in teams, are in a "focused, supportive environment," and gain experience solving real-world problems. Many students feel that the MIT community would benefit from **expanding or adding to these existing programs**.

Student groups

Students enter MIT from a variety of leadership backgrounds. Self-organized student groups are not formalized in their educational process, but students learn a variety of non-technical "soft skills" from their experiences in these clubs. Some of the skills learned through these clubs include **delegation, mentorship, logistical planning, time management, and work-life balance**. These skills are directly transferable to those necessary to succeed in the 21st century workplace, and help develop a more holistic educational experience. While the program of student groups need not be formally expanded, it is important to maintain the diversity and self-

[9] We defer to the 2013 IAP subcommittee report of the Faculty Policy Committee (http://web.mit.edu/faculty/reports/pdf/iap.pdf) for a more comprehensive review of IAP

directed nature of the groups on campus so every student feels welcome and has an opportunity to develop these skills in a comfortable environment.

Hands-on learning

MIT's motto *mens et manus* applies not only to laboratory work, but also tactile learning outside of a formal setting. The Edgerton Center, MITERS, and student groups such as Solar Electric Vehicle Team and Formula SAE racing are extremely well received by students who believe projects in these contexts serve to **reinforce their MIT education more than any research project**. While the students in these hands-on learning and building environments love their experiences, some say that they are not well publicized on campus, and could benefit from expansion. Another manifestation of the hands-on learning spirit of MIT is also expressed from its longstanding hacker culture. Hacker culture combines the self-directed nature of a student group with the tactile project based spirit of the Edgerton Center and other resources on campus to help fuel MIT's highly creative, collaborative, explorative environment. We feel that such a culture should be protected and encouraged at MIT, as long as participants exercise safety and caution, and are conscious of legal and Institute boundaries.

Suggested Topics for Further Exploration

Our recommendations on this topic are as follows.

- The MITx initiative needs significantly **improved signaling and internal publicity**. This publicity should be used to articulate how the global goal of democratizing education can be achieved alongside specific improvements to residential education and without jeopardizing the MIT brand or degree.
- Increase **graduate student participation and faculty buy-in** into existing non-traditional learning resources on campus, including the Edgerton Center, IAP, UROP, student groups and extracurriculars.
- **Enhance existing MISTI/externship programs**

Subtheme: Professional Development

Professional development encompasses activities and programs designed to prepare students for their future careers after graduation. As students' career goals and needs change over time, the professional development services offered by the Institute will need to change accordingly. One notable trend in recent years has been a strong shift from technical engineering professions to more business-oriented careers among MIT graduates. Now, more than ever, it is no longer enough to be technically talented; students need to gain a variety of hands-on and interpersonal skills to succeed in their future careers.

Undergraduate and graduate students have very different needs and experiences with regards to professional development. The following sections identify issues and opinions specific to one population or the other in addition to feedback that was common across the student body.

Undergraduate-Specific Opinion

Institute-Wide Career Programs

There are several Institute-wide programs that attempt to address the need for professional development among undergraduates, including the Freshman/Alumni Summer Program (F/ASIP) which connects freshmen with alumni for externships and internships, the Undergraduate Practice Opportunities Program (UPOP) which provides career skill training for sophomores, and the Gordon Engineering Leadership Program (GEL) for juniors and seniors in engineering. Other leadership development programs exist which are not specifically career-focused, largely run by the Student Activities Office.

Students who have participated in these programs report that they were **highly rewarding**. However, **such programs can only reach their members**; students requested more resources accessible to students who do not have the time, ability, or desire to participate in Institute-wide career development programs.

Classes

Undergraduates often cite communication intensive classes in majors (CI-Ms) as a source of career-relevant communication skills and experience. While many students feel that the CI-Ms are meeting their stated goal of "teaching the specific forms of written, oral, and/or visual communication appropriate to the field's professional and academic culture"[10], others feel that the **CI-M courses could be expanded to include more career relevant skills.** Some students expressed to us a desire for specific, **mandatory career-based courses** in their major, similar to the role of 6.UAT in the EECS major. Many peer institutions such as Stanford require such professional development courses of their undergraduates.

[10] http://web.mit.edu/commreq/students.html

Other career skill development takes place in hands-on laboratory classes**.** Students emphasized that **developing well-structured laboratory curricula** across all courses should be a pedagogical priority.

UROP and Internships

Many students indicated that real-life job experience – whether in MIT labs through UROPs, or in industry through internships – was a main source of professional skill development for them. Some students indicated a desire for the UROP to have a more structured communication component.

Graduate-Specific Opinion

The professional development of graduate students, like many other facets of graduate support at MIT, has been **heavily entrusted locally to the graduate's immediate research environment and department**. Though this decentralization of professional development activity can result in examples of highly-tailored programming and personal support, it also means that the **quality and quantity of professional development varies considerably across the Institute**. Some departments have particularly effective development pipelines whereas in others graduates feel there is little or no development.

The two most common remarks we heard were that advisors and departments either focus disproportionately on presently useful graduate skill sets with less emphasis on long-term tenure track professional needs and that there is a lack of development of skills required for professional pursuits outside of academia.

Academic Career Paths

Although access to advice on paper-writing and academic careers has been increasing over the last four years, many graduate students report that they feel ill-prepared for the lifestyle of the faculty member. Students report that **departmentally-driven development focuses excessively on presently useful graduate skill sets** at the expense of long-term tenure track professional needs. In a study by IR, faculty career skills (such as writing grant proposals) made up the five areas most poorly rated by graduate students as having been addressed through their graduate education.

There are many unexplored spaces which MIT can approach to provide better management and leadership skills to students specifically interested in academia. In particular, many students remarked that their **experiences TAing or mentoring UROPs** provided personal growth beyond anything they had achieved in the classroom or lab.

Graduate Involvement in Entrepreneurship

One of MIT's most distinguishing and enviable strengths is the emphasis it places on pursuing science in service of society. Though many students cite this drive as the major reason they chose to come to MIT, we have heard a number of concerns and critiques regarding entrepreneurial opportunities for graduates. First, graduate students feel **disempowered by the**

unpredictable enforcement of intellectual property contracts. Several have commented that the garage/DIY/sandbox inventor paradigm which is culturally supported for the undergraduate population is not sensitive to the constraints placed upon graduates. Second, international students expressed frustration in not being able to take advantage of all of MIT's entrepreneurial activity due to **restrictive immigration laws**. International graduate students would like to see MIT demonstrate greater visible leadership nationally in immigration reform for advanced degree holders.

From a programmatic standpoint, in the schools of science and engineering, students sometimes feel disempowered by programs which **overemphasize the partnership of Sloan students and researchers,** commenting that they "wished somebody would tell scientists that they can be business leaders, too". This is in contrast to the east side of campus where Sloan students have remarked that in the world of innovation and entrepreneurship (I&E) MIT is perhaps placing too much stock on the entrepreneurship side and not enough on innovation. One Sloan student remarked to us, "at Sloan, I see a whole lot of E but very little I".

Community-Wide Opinion

Global Education and Career Development (GECD)

By far the most frequent two comments among graduate and undergraduate students are that, on the one hand, the services offered by the Global Education and Careers Development (GECD) are **generally useful**, and yet on the other hand, these services are **drastically underutilized**. Even more concerning, in spite of an increasing number of students entering non-academic career paths over the last seven years, the graduate student **non-utilization of the GECD has increased** from 67.7% to 78% over the period of 2004 to 2011. Additionally, according to the 2013 Quality of Life survey, 50% of graduates and 25% of undergraduates are not aware of the existence of GECD.

Graduate students tend instead to look towards their departments for advice and development of professional skills. One possible model to overcome this problem might be for GECD to emulate the MIT Library system, which has dedicated departmental "account managers" that focus on only a handful of departments to better grasp the unique needs of the students while at the same time connected to the larger library system.

An important undergraduate concern is that Career Fairs and GECD resources are disproportionately focused on Course 6, and are particularly lacking in material about careers for HASS majors, for students interested in non-technical careers, or for students in majors typically requiring a Ph.D. (such as biological engineering) who discover they were not interested in pursuing a Ph.D. and would like information about alternate careers.

Student Groups

Graduates and undergraduates alike look within their communities to accumulate experiences in leadership, management, and planning. In **student groups and residential communities**,

students report gaining important skills such as drafting strategic plans, writing grants, managing budgets, and leading teams. Students do not feel that anything needs to be changed in this area, but instead emphasize that MIT must continue to prioritize supporting and funding for the varied and autonomous student communities that make up the mosaic of the Institute.

Suggested Topics for Further Exploration

Our recommendations on this topic are as follows.

Community-wide

- Improve visibility of GECD to all students.
- Consider implementing "departmental professional development officers" which oversee only a handful of departments at a time.
- Ensure adequate resources and information exist for students interested in non-traditional majors and career paths

Undergraduate-Specific

- Ensure that all CI-M courses teach career-relevant skills
- Consider developing mandatory career-related courses in departments, either as part of existing CI-Ms or as stand-alone courses (similar to 6.UAT).
- Assist departments in developing strong, hands-on lab curricula

Graduate-Specific

- Research departments with a one-term teaching requirement; consider expanding this requirement across schools.
- Offer "academia skills" classes on grant writing, group management, supervising, and teaching to senior graduate students and young faculty.
- Expand UROP on the graduate side by offering mentorship classes and requiring deliverables of graduate mentors. Consider providing credit to graduate mentors.
- Provide an inventor's guide of "who owns what?" to help grads understand IP rules at MIT.
- Consider relaxing "significant use" clauses for grads in the Policies and Procedures (13.1.1/2)
- Be a visible and active voice for advanced degree holder immigration reform at the federal level

Subtheme: Well-roundedness

Background

The last MIT committee that directly considered well-roundedness as an overarching concept (outside of an admissions context) was the 1998 Task Force on Student Life and Learning, which highlighted well-roundedness from the perspective of developing global leaders in tomorrow's work place:

> *"**Why MIT Must Change:** If MIT graduates are expected to be the leaders that make important contributions to society in the 21st century, an MIT education must better prepare students for life. MIT has a unique opportunity to prepare each of our students to make great contributions to society… The leaders of tomorrow will be technically proficient, but they will also **work well with others**, **adapt quickly** to organizational and technological change, and **understand the needs of the communities** in which they work and live."*

Student Opinion

In the 15 years since, the idea of well-roundedness at MIT has largely been linked to the educational commons, especially the undergraduate **HASS** requirement. As such, the HASS requirement was the most frequently mentioned when we asked students broadly about well-roundedness at MIT. Satisfaction with the HASS requirement—and with the diversity of MIT's offerings more generally—is reasonably high. Students seem to generally believe that courses in HASS are important to becoming a balanced, educated individual. At the same time, they emphasize the importance of freedom of enquiry, flexibility, and space to choose their own intellectual path. The new HASS structure, which allows more freedom than the former HASS-D requirement while still maintaining a distribution requirement and an impetus to take 8 HASS courses, seems to have been met with a generally positive response. In spite of this feedback, some students indicated to us that oral communication and writing skills among their peers are still somewhat lacking despite the eight-semester requirement.

Undergraduate and graduate students also had more expansive visions of what a well-rounded MIT education should provide. Discussion seemed to occur along two broad axes: **personal fulfillment and exploration**, and **development of professional skills**. More emphasis seemed to be placed on well-rounded development that will serve students in their professional careers: a more instrumental view that aligns with the approach of the Task Force on Student Life and Learning. In the words of one undergraduate:

> *"I think well-roundedness of **core** skills is necessary as part of the educational objective at MIT. For example, in academic well-roundedness, the actual knowledge of specific classical literature or historical events is not as important as the skill sets developed… Outside of academics… extracurriculars lead to teamwork/leadership/interest*

development/stress management, and dorm involvement leads to collaboration/community development/balanced social interactions."

Students emphasized that we should not strive to be "like Harvard," but rather focus on what well-roundedness should mean *at MIT.* Themes that emerged included:

Cross-disciplinary well-roundedness, especially across engineering fields, is lacking. Engineering students seem to generally not feel they have the time or freedom to do cross-disciplinary work in other engineering subjects. They feel it would allow them to think more expansively about problem-solving and be better prepared for the engineering work force, equipping them with approaches and perspectives from across engineering disciplines with which to solve problems. The REST (Restricted Electives in Science and Technology) requirement, which could possibly fill this role, received consistently negative feedback. One representative comment: *"Fix the REST requirement so that it actually makes people take classes outside their field - and don't penalize them for taking advanced classes!"* For graduate students, some departments require minor degrees in addition to major-specific coursework. Such structures give graduates validation to explore cross-disciplinary field regardless of the demands of their advisor or research.

Student activities, student government, residential communities such as dorms and FSILGs, and other student engagement have pedagogical importance, and are spaces where students develop a well-rounded set of skills, especially in leadership and collaboration. One student said: *"I would like to preserve MIT student group freedom. I feel like I learn the most from my work within student groups."* Another student quoted a professor who decried MIT's use of expensive consultants when MIT students would go off and become consultants themselves – why not save money and allow MIT students to solve problems with real-world constraints themselves, while simultaneously developing valuable leadership, analytical, and getting-things-done skills? A third student said: *"If there is a problem around the Institute, forming some sort of competition among the students (even if there is little or no reward) would bring a much larger number and much larger range of ideas than hiring a consulting company that isn't familiar with the school."* A graduate student who also completed his undergraduate degree at MIT emphasized the building culture of his residence hall in learning how lead a group in project development: *"Living in East Campus [dormitory] I had access to tools and a workspace. Events like REX and the Bad Ideas competition gave us an impetus to make projects we were passionate about actually happen."*

Entrepreneurial and risk ownership culture encourage students to innovate and self-determine how to successfully create value. Along the way, they develop a host of ancillary skills necessary for such complex, open-ended pursuits. One student said: *"I like the ask forgiveness not permission culture. I like the entrepreneurial atmosphere. I think MIT needs to emphasize DOING things more. I have a sense that the Manus component of Mens et Manus is being left behind."* A part of this entrepreneurial culture is a number of spaces in which to self-start

projects: *"MIT is the best place in the world to learn outside of class. After-hours work at MITERS and the hobby shop did more to reinforce what I learned in my undergrad engineering classes than any research project I've done since."* Further, the benefits of entrepreneurial activity expand far beyond the realm of an enhanced approach to engineering professional development. These activities were also noted for teaching students how to lead, manage, collaborate, get things done, motivate themselves and others, and present their ideas to others effectively in person and in writing.

Global experiences through MISTI, D-Lab, G-lab, etc. seem to have high satisfaction, but were not often mentioned in the context of well-roundedness.

Graduate-specific issues – Though the topic of well-roundedness was often cited as more relevant at the undergraduate than graduate level, most of the above points and quotes were drawn from both graduate students as well as undergraduate students. There were several additional concerns at the graduate level. Graduate students often seemed to value well-roundedness personally, but many did not seem to necessarily expect that their graduate education would provide it explicitly. Some believe that well-roundedness for graduate students means that students should be able to place their research in the context of its relevance to society, but this does not seem to be an educational goal in most departments. Many graduate students indicated they would ideally like to participate in these activities – from athletics to the Hobby Shop to understanding the sociopolitical implications of their work – in their personal time, but were unable because they lacked the time for a personal life. Other students wished for increased flexibility inside their educational program, and the flexibility to take coursework in other departments. The desire to have cross-disciplinary well-roundedness, especially in engineering, was equally as strong at the graduate level as undergraduate.

Suggested Topics for Further Exploration

Our recommendations on this topic are as follows.

- Identify methods to create a clearer connection between the rich experience students develop in 8 semesters in the humanities, arts, and social sciences, and their relevance to science and technology in a cultural context.
- Evaluate the REST requirement, or explore new curricular approaches to facilitating cross-disciplinary, upper-level exploration in science and engineering.
- Investigate innovative options to broaden students' backgrounds at the graduate level, such as the minor program incorporated in the Department of Mechanical Engineering curriculum.

Theme 2: Community
Places, Resources and People

Intent and Scope of this Section

In our first theme, PTAC explored students' opinions about their educational experience. In this, the second theme, we are exploring the topic of "community" at MIT as it pertains to students' experience. We have strived to **identify** areas which were frequently mentioned by students, or areas where students have strong opinions. A secondary goal of this section is to identify areas which are not mentioned often by students but are nonetheless important to them, in most cases because students feel these areas are working well and do not need to be changed.

Theme Definition: "Community"

Community is a broad topic, covering many aspects of students' non-academic lives, including students' relationships with those around them, their formal and informal groups and affiliations, the community's shared values, the places and spaces in which students spend time and make connections, the resources that support students and help ensure their needs are met, the channels of communication and change which enable students to define their own experience and feel ownership of their community, and many other aspects that form the basis of a student's identity and sense of belonging. We have structured this report into three rough sub-areas - ***places, resources,*** and ***people***.

Although this section describes concrete aspects that contribute to community at MIT, these concrete aspects alone are inadequate to account for what makes the MIT community special and unique. Much of the "magic" of the MIT community lies in the intangible, **organic ethos of the student body**. Attempts to influence or modify the MIT community from the top down may be unsuccessful if and when those attempts conflict with the grassroots spirit of the student body, and it would not be possible to recreate the MIT community simply by recreating the concrete places, resources, and interconnections that we describe here.

Methodology

We utilized several methods to gather student opinion in this theme, including:

- Coffee chats with individual students
- Reading and reviewing existing reports and surveys about community
- Online surveying via the PTAC website
- Public student forums

Section Organization

We have structured this document into three subsections. In each subsection we call attention to aspects which students bring up often, or which students express strong opinions about. The **places** section covers opinions about living, working, and gathering spaces at the Institute. The

resources section describes opinions on the structured resources and programs intended to meet students' non-academic needs and to build community. The **people** section covers interpersonal interactions within the community, community engagement and involvement, and shared community values. Further detail is provided below.

Places include all the living, working, and gathering spaces at the Institute. Students often brought up the following:

- Living Spaces
- Social and Recreational Spaces
- Study Spaces

Resources include structured resources and programs intended to meet students' non-academic needs and to build community. Students brought up the following resources:

- MIT Mental Health and Counseling
- MIT Medical
- Student Support Services (DUE)
- ODGE

People include interpersonal interactions and decision-making processes within the community, as well as shared community values. Students brought up the following topics:

- Shared values, including diversity, collegiality, and meritocracy
- Community decision-making and student involvement
- Student groups

Places

Background

This section refers to any community that is defined by a physical place as well as concrete spaces that foster community development. Examples of places defined by a physical space are living groups like dorms and FSILGS. Places that might not define a community but organically lead to community development are course lounges, common space for student groups, and common space accessible for social interactions.

What's Currently on Students' Minds?

Living Spaces

This seems to be the most important aspect of MIT that contributes to undergraduate students' sense of community. To the undergraduate population, their dorm, hall, or FSILGs defines their home and thus becomes their source of support. The overwhelming sentiment, however, is that the administration is trying to eliminate the process of self-selection and independence which created this diverse living group community. The perception of administrators interfering with residence group dynamics - from instituting RLADs in dorms, to the FSILG Office controlling RA Selection in FSILGs, to DSL involvement in REX and FSILG rush - is heavily opposed by the undergraduate population. This distrust for administrators with regard to the residential life is one of the common attributes among all undergraduate living groups.

On the graduate student side, about a third of grads live in MIT dorms, while the rest are spread out from East Cambridge to Cambridgeport; and from Porter Square to Brookline. In contrast with the undergrads, many grad students living in dorms do not necessarily look to their dorms as their primary source of community, to the same extent that undergraduates do. The two-thirds of the grads living off-campus are so spread out that they do not have a single off-campus community.

Social and Recreational Spaces

Areas like the Student Center are integral to undergraduate student interaction and community development. However, the undergraduate sentiment is that the Student Center needs renovations to meet the demand of the modern student. This includes more open spaces accessible for large group collaboration, better lighting, and spaces to meet friends to socialize. In addition, undergraduates have expressed a desire to expand and renovate the dining options in the Student Center. The current options are not only limited in selection but also offer limited hours of operations, with the exception of La Verde's.

In contrast, grad students do not use the Student Center as much. The center of where graduate students work is currently closer to the Stata Center than the Student Center. Spaces graduate students currently use for socializing on campus include the lobbies in Stata and the new Koch Cancer Center, and various departmental lounges. Walker Memorial is also a valuable meeting/event space for many student groups such as WMBR (MIT's campus radio station), the Muddy Charles Pub and Morss Hall – a commonly utilized large event space for many student group functions. There is a desire amongst grad students to see more spaces to socialize on this side of campus, particularly more (affordable) late-night food options. MIT does not necessarily have to build and operate all new options in this area, but creating an environment where such options are available is highly desired by students (as evidenced by the popularity of the new Chipotle on Kendall Square, which is one of the only affordable late-night food options currently available for students on this side of campus).

Performing arts spaces have come up as a possible area for expansion. At the moment there are very limited dance spaces equipped with flooring and mirrors for performing art groups to practice. Given the shortage groups practice in lobbies and open areas around campus limiting their performance ability.

The Zesiger center is very positively reviewed by students for the most part. The main concern that arose was the constant contracting out of Z center facilities by non-MIT groups has the tendency to discourage MIT student groups from using the space.

Study Spaces

Initial student sentiment on study spaces (libraries, reading rooms etc.) has been generally positive. The reading rooms are a great asset for the undergraduate population. In conjunction with the Athena Cluster and elevator lounge, the 5th floor of the student center is one of the most popular and crowded study spaces on campus. Students are happy with the accommodations, but have brought up the issue of further expansions and more space as it gets fairly crowded and finding space to work becomes an issue. With that, students suggest that resources like whiteboards and collaboration tools like projectors or screen can always improve. Library spaces seem to be plentiful, accessible, and are perceived positively. A common suggestion was to have more 24-hour library spaces.

Other Important Areas

- Students generally seem to be satisfied with lab spaces and graduate student offices, with the exception of a fewer older facilities.
- Course lounges seem to be working well for the departments with these spaces. These lounges can serve as a primary way of developing communities within some courses. They offer a safe space for students to collaborate and feel at home while on the academic side of camps. In addition these spaces unite students across sub-courses (10 and 10B for example) as well as across years.

Resources

Background

A healthy and well-functioning community is supported by many formalized institutional resources. Formalized resources help community members become empowered and active in the wider MIT community, meet basic needs such as health, mentorship, and arbitration. Here, we comment on student usage and opinion of these critical resources.

What's Currently on Students' Minds?

MIT Mental Health and Counseling

MIT Mental Health and Counseling is utilized by approximately 15% of the student body in any given year, and approximately 35% of all students will visit MIT Mental Health during their MIT careers. The average student that visits MIT Mental Health Services comes for an average of seven visits.[11] Many students have commented on how critical the services provided by MIT Mental Health have been to their success at MIT, not only in private interviews conducted by PTAC, but also in a recent string of letters[12] in which students and professors have described their struggles with mental health and the factors that have helped them overcome those difficulties.

That said, some students report that they are hesitant to utilize the services of MIT Mental Health and Counseling because they sense a cultural stigma surrounding asking for mental health. Some students are also dissatisfied with the wait times to see a clinician, and even others question the effectiveness of the resource itself. This stigma surrounding asking for mental health is especially prevalent among international students.

MIT Medical

MIT Medical is a comprehensive on-campus healthcare provider that supports the entire MIT Community. Some basic services at MIT Medical are free to all students, while others are available with the student extended insurance plan. In addition to providing medical care and treatment, MIT Medical also houses Community Wellness, a division dedicated to improving the quality of life for the MIT Community.

Students generally value the services provided by MIT Medical, but are dissatisfied with sometimes uncompassionate clinicians and long wait times in the Urgent Care department. Furthermore, budget cuts recently reduced Urgent Care Hours from 24/7 to 7 AM - 11 PM daily.

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[11] http://medweb.mit.edu/mentalhealth/mh-questions.html

[12] http://tech.mit.edu/V132/N17/depression.html, http://tech.mit.edu/V133/N13/belcherdepression.html, http://mitadmissions.org/blogs/entry/meltdown

This change was not well communicated to the student body, and confusion still exists surrounding what resources are available outside these hours, and protocol for situations requiring medical attention outside these hours. Additionally, many students are unaware/unfamiliar with many of the resources at MIT Medical.

Student Support Services

Student Support Services is a group of academic deans and administrators that serve to support, refer, and inform the undergraduate student body at MIT. Additionally, S^3 can advocate on students' behalf in case of academic difficulties and illness. Over 50% of the undergraduate student body visits S^3 during their years at MIT.[13]

Student opinions are heavily polarized on S^3;that is to say, the feedback gathered by PTAC included both strong positive opinions and strong negative opinions, in roughly equal measure. Many students feel that S^3 is one of the most valuable resources at MIT. Other students expressed strong concern about a lack of clarity about their options when they seek help from S^3. On the positive side, students expressed appreciation for the role S^3 plays in helping students complete their coursework in times of difficulty, such as by contacting professors, moving deadlines, making alternate arrangements for their academic work, and referring students to other resources. These students often expressed that S^3 had had a strong positive impact on their lives: without the help of S^3 they would not have been able to successfully complete their coursework and overcome the event, obstacle, or other difficulty that was hindering them. However, students expressed confusion regarding the circumstances under which S^3 can academically intervene. On the negative side, students expressed concern about miscommunication and lack of transparency regarding their options, especially those who had contemplated or taken a leave of absence, or who knew a student who had been in that position. These students often expressed that their interactions with S^3 hada negative impact on their lives: that they or their friends had made choices that were not right for them because they did not understand their options. Students furthermore expressed confusion about the relationship betweenS^3 and Mental Health and Counseling:many students are unclear about the differences between the two bodies, what information can be shared between them, and how they interact when coordinating a student's care if that student is utilizing both resources.

Office of the Dean for Graduate Education

For graduate students, the ODGE is the central resource for students providing a wide variety of resources including financial, educational, and personal student support. Students often hear

[13] http://web.mit.edu/uaap/s3/about/faqs.html

about the ODGE during the GSC graduate student orientation and are introduced to the diverse resources they provide. However, one opportunity to increase student utilization of the ODGE is to remind students throughout their academic careers of the role that ODGE serves in supporting the student experience. As has been mentioned earlier, graduate departments often create silos for students and their belonging to a broader graduate community is sometimes forgotten. This provides a challenge for the utilization of the ODGE as it is not always seen as a resource for all graduate students.

Other Important Areas

Other resources that support communities at MIT include the offices that support smaller subpopulations of students. These include the FSILG Office and Office of Minority Education which both support undergraduate students.

People

Background

MIT is known around the world not only for its discoveries and accomplishments, but also for the distinctive character of the people who are educated and choose to educate at the Institute. Students frequently discussed *shared values* of the community, and in this section, we seek to outline the core aspects of the people dimension of community, both the *attitudes* of community members and the *structures* that allow members to meaningfully interact.

What's Currently on Students' Minds?

Shared Values – Diversity

Students understand that diversity is a priority at every level of the Institute, and in fact, this was one of the most mentioned characteristics of the MIT community. While it is clear that diversity is a shared value, it is our view that more can be done to clarify what diversity at MIT means as an institutional objective.

One set of indicators to measure diversity are demographic breakdowns of our community by the traditional categories of race and ethnicity, gender, socio-economic status, and parental educational outcomes for undergraduates and undergraduate institution for graduate students. For example, at the undergraduate level, there is great pride ascribed to the statement that there is no majority ethnic group on campus. Across these categories, students consistently report often or very often (>60% each) interacting with students who differ from themselves. There are, of course, other dimensions of diversity, including academic, research, and extracurricular interests manifesting themselves in degree programs, student groups, and departments, labs, and centers.

Shared Values – Curiosity, Meritocracy, and Collegiality

For all the community's immense diversity, a unifying characteristic is the persistence with which each member pursues their curiosity and passions--from faculty, to students and staff. One student wrote that "it doesn't matter what background we come from, we're all here because we love a challenge." Yet another, referencing the hack that placed a firetruck on the dome, noted that "it's an impossible task, but nothing is, if students are dedicated to it."

As a meritocratic society, we believe that the accomplishments of our colleagues are yet another way members experience and appreciate the intellectual and cultural diversity of our community. For example, in the same community of 12,300 students, faculty, and postdoctoral associates are those who have won the MacArthur Genius Grant for a career in writing, developed methods for fabricating sensors using pencil lead, and discovered a key mechanism of tumor metastasis. We celebrate these accomplishments, and the challenges overcome in the process, are what form the basis for capital and mutual respect in our community.

MIT's collegial atmosphere, consisting of mutual respect, collaboration, trust, and individual freedoms, rounds out the foundation of the student experience. Because of this atmosphere, competition at MIT takes a much different shape than that at other schools, this "competitive non-competitiveness" was described by one student as not "having to wipe everyone else out," but rather to cooperate to achieve much more. Further, there is a recognition that a great idea is a great idea regardless of the source, providing "room for... insight from the unlikeliest of places, every day," and enabling everyone to be "encouraged to participate in big decisions." Finally, students are afforded great freedom and responsibility, where "many things are student-run," and students are "treated as adults." In fact, freedom, was the second-most mentioned aspect of community behind diversity.

Community Involvement and Student Engagement

In literature, influence is described as "a bidirectional concept," with each member having "some influence over what the group does," as well as the "group influenc[ing] its members."[14] In MIT's collegiate society, community engagement is pursued through the many Faculty and Presidential committees with established relationships with student government and through direct interactions with students in advance of decisions. Decision-makers have benefitted from the insight of the community and trust cultivated through efforts such as the Institute-wide Planning Task Force, an example of the MIT community coming together to discuss hard decisions. In transparent, well-constructed processes like these, MIT has the opportunity to fruitfully harvest the passion inherent in the student body's love for the MIT community.

In contrast, missteps in community engagement can jeopardize the trust students, as well as other community members, place in decision-makers at potentially critical junctures in MIT's growth and development. In these cases, especially when decisions concern their "small families," students are more likely to resent change and feel alienated by the larger MIT community. Based on past observations, recommendations for better structuring engagement processes have been posed. Presently, many students raised a desire for communication "with definitive results," where care is made to demonstrate that feedback has not "go[ne] in one ear and out the other" in advance of a major decision.

Student Groups

With over 450 student groups, 33 varsity, 35 club, and 18 IM sports, 41 living groups, and numerous labs and groups sponsored by departments, many of the freedoms students experience

[14] McMillan, D. W.; Chavis, D. M. (1986). "Sense of community: A definition and theory." Journal of Community Psychology, Vol 14(1)

are through an “administrative permissiveness,” which enables students to govern the groups in a major if not virtually complete extent. In these environments students not only find outlets for their aforementioned passions, but gain the opportunity to develop the skills so essential to the entrepreneurial spirit of MIT. Further, and perhaps more importantly, the friends that students develop become their “small families away from home,” offering critical support when “every student gets knocked down” and must, as we inevitably do, “find a way to stand up again.” Understanding the best ways to support students as part of these groups is key to maintaining MIT as a “safe, happy... home” for students.

Theme 2: Community
Student Support & Student-Administration Engagement

Executive Summary

In this section, we explore two specific topics that are instrumental in maintaining a strong community: **Student Support** and **Student-Admin Engagement**.

1. Student Support

In the first topic of **Student Support**, PTAC describes the ideal support system as one where **students are accessing resources** and **the resources work for them**. We have assessed whether the MIT support structures are accomplishing this goal by evaluating if resources are:

- Communicated
- Effective
- Utilized

Since PTAC is not qualified to assess the degree of support along these axes, we comment here on **student perceptions**. Student perceptions of their support services are equally as valuable as the actual functioning of these resources, because they help identify why students seek or do not seek support. We also provide suggestions for long-term methods of evaluation, and improvement of these resources in the near future.

2. Student-Admin Engagement

One of the key features of a healthy community is the active participation and ownership of the community by all its members. Mis-steps in engagement are damaging to the community, because they seemingly oppose the Institute's core values of collegiality and meritocracy. We have identified that engagement can be divided into the key categories of trust, process, and perception and developed a set of principles to guide student-administrator engagement that we hope will inform future decision making processes.

In the area of **trust**, we outline a model for building and maintaining a trusting relationship between students and administrators.

We then describe a generalized **process** for engaging students in administrative decisions, and outline how to maintain **trust** throughout this **process**.

We finally address the area of **perception**, which provides a feedback mechanism to both students and administrators encouraging continued engagement.

Support

Student support is a critical component of making MIT a healthy and productive community. Overall, the ideal student support system is one in which *students are accessing resources*, and *those resources work for them*. PTAC has identified three critical aspects which factor into that goal statement: **communication**, **effectiveness**, and **utilization**.

- **Communication:** Are students *aware* of the resources available? Do they *understand* when and how to access each resource, and the consequences of doing so?
- **Effectiveness:** Do these resources adequately *address students' needs*? Do students have positive, helpful experiences when they access these resources? Are there needs which are going unmet?
- **Utilization:** Are there cases where students are aware of resources, and those resources would meet their needs, but students nonetheless *choose not to* utilize them, or are *unwilling* to? Why not?

PTAC is not in a position to *evaluate* student support along these axes in a methodologically sound and data-driven way. However, we report here about student *perceptions* in these three areas; we point to past reports and surveys that contain relevant insights; and we indicate possible avenues for concrete evaluation, action, and improvement in the near future.

Communication

Communication encapsulates at least two different aspects of conveying information about support resources. One is raising *awareness* of resources, and the other is addressing students' *confusions and concerns*. There have been a number of efforts to improve the visibility of student support resources, most recently including the MITogether website and campaign. We believe that the administration should continue to communicate what resources are available and how to engage. At the same time, it is of equally critical importance to gauge what questions students have about the student support resources, and proactively answer these questions in a way that is accessible to students.

Awareness

There are several different axes along which awareness of student support may be considered. On one axis, the awareness of the existence of a resource can be measured by the number of the students aware of the existence of the resource and its services. Some groups, like S^3 and MIT Medical excel in this area, while other campus resources such as CDSA, Community Wellness are less well-known around campus[15]. Awareness of student support can also be measured in terms of how many students are aware of the actual utilization of these resources. Students are much more likely to ask for help or seek support when they are aware that the act of seeking help is normal. MITogether is a new campaign formed on the premises of raising awareness of asking

[15] 2013 Quality of Life Survey

for help at MIT and promoting a campus culture of support, and could represent an advance in campus awareness of resource utilization. Events such as the Wellness Fair that was recently held by the FYE in Kresge on October 25, 2012 also help promote awareness of campus resources, but equivalent events are absent for upperclassmen and graduate students.

Confusions and Concerns

In our conversations with students, we uncovered many points of confusion or concern. Students' questions range from those pertaining to what support resource a student should engage with, to the consequences that might result when a student goes to a support resource. Although many of these confusions could be cleared up by consulting informational resources, and many of these concerns are likely unfounded, the effects of misconceptions and fears can have a powerful impact on students' likelihood of reaching out to support resources.

The following are questions students raised specifically about S^3 and Mental Health:

- Have the resource cuts to MIT Medical, reduced hours, and the closing of Nightline contributed to longer wait times at Urgent Care or less effective service at Mental Health?
- What information can be shared between S^3, CAP, Mental Health, Deans on Call, other deans, advisors, parents?
    - Mental Health offers a strong guarantee of confidentiality except in cases of "serious danger of harming self or others."
    - S^3 has a less restrictive confidentiality clause which is more open to interpretation, including the phrase "there may be times when information needs to be shared with MIT faculty or staff, parents, or health care providers."
- Who has the power to make decisions about your medical/mental health treatment? Your enrollment status at MIT? Your ability to return to MIT if you withdraw?
    - Students are concerned about the possibility of required withdrawal in cases covered by *neither* the CAP academic withdrawal process *nor* cases where a student poses an imminent danger to self or others. For example, students raised questions such as "Can an S^3 dean personally cause a student to be removed from MIT if they do not follow the dean's recommendations?" and "Can a Mental Health provider decide that I am too great a liability to remain on campus, even though I do not pose any imminent danger?"
- Is it "easier" to leave on voluntary leave or medical leave? When is there the option or choice?
- How voluntary is "voluntary" medical leave? If it is recommended that I take voluntary medical leave, but I do not want to, what happens?
- If I seek help at MIT Mental Health, will I be hospitalized?
    - A non-negligible percentage of students fear that visiting Mental Health results in their involuntary hospitalization. In reality, the most recently available data (2008-2009) indicates that of 11,000 students visits, only 47 resulted in

hospitalizations (most of which were voluntary)[16]. While any hospitalizations are unfortunate for all parties involved, it is not commonplace for students to be hospitalized when seeking help.

We reiterate that the answers to these questions are often available if students were to consult the correct resources; what is important is not whether students could theoretically clear up their confusions, but rather, whether or not students actually remain confused.

Effectiveness

As previously mentioned, PTAC is not in a position to broadly evaluate the effectiveness of these resources. However, we briefly summarize common campus *perceptions* of the effectiveness of some of these resources. As students, commonly repeated campus perceptions of resources are often the basis on which we decide whether or not to seek help, and in which form the support we seek takes.

The 2001 Mental Health Report[17] stated that there are "Many inconsistencies, problems, gaps in communication...in the process and procedures of Medical Leaves of Absence. … MIT should review all policies regarding Medical Leave and should create a comprehensive policy which holds all parties accountable, defines uniform standards, and gives students an appeal process to follow should they need it." In 2012, PTAC has found that there are still similar sentiments surrounding the leave of absence policies. Considering the desired outcome of any leave of absence is successful reintegration of the student into the MIT Community, we feel that the standards by which the MIT measures fitness for readmittance should be public, so students on leave can strive to attain these measures. Additionally, students expressed to us frustration at the vagueness of MIT's policies - many felt that there were steps they were told they should be taking, but no concrete outcome at the end of the process. The lack of benchmarks to measure progress during their time away was generally frustrating to students, and contributed to an overall sense of vagueness surrounding the process.

Separate from the leave policies, there are also incredibly polarized opinions on the effectiveness of various support resources on campus. Taking S^3 as a representative example, some students feel that their time at MIT would have been impossible without the support from S^3, while others feel that their services only added to their distress. While we are not qualified to comment on the percentage of students that feel dissatisfied with their support services, we recognize that any dissatisfaction represents an unmet need that existing resources can strive to fulfill. **We recommend that each support office solicit and evaluate anonymous feedback** from each student that utilizes their services to help identify areas for growth of support. The solicitation and incorporation of feedback into support structures also helps promote a mutual trust amongst

[16] MIT Mental Health FAQs http://medweb.mit.edu/mentalhealth/mh-questions.html#hospitalization

[17] 2001 Mental Health report: http://web.mit.edu/chancellor/mhtf/

students and support providers, and aids in improving campus perception of resource effectiveness.

Utilization

While having the best facilities, staff, and resources for student support are critically important, it is equally important to make sure that students engage with the resources available. Improved communication about the various forms of support will help engagement and help students navigate their resources. However, more importantly, the attitudes and culture surrounding seeking support need to be addressed on campus.

It is more of a cultural norm at MIT to brag about the number of all-nighters you have pulled than to talk about the times when you have asked for help. In fact, asking for help is viewed as a weakness in many social circumstances at MIT, which poses a significant barrier to utilization of support resources by students. Changing cultural norms to be more accepting of asking for help is a gradual process, and students can be wary of top-down approaches from administrators, often being more receptive to the influence of their peers and mentors.. However, we recognize some simple areas for improvement that can help progress the process. First, a statement encouraging students to seek help from their Professors, TAs, REFs, S^3, etc. in times of personal or academic difficulty could be included on every syllabus. This small statement serves a similar purpose as the academic integrity statement, and continually reaffirms the value and normativity of student support. Another approach, involves a well-known faculty member "championing" the process of seeking support. Similar to how Magic Johnson was one of the celebrity champions of the gay rights movement, a faculty member that many students know and respect publicly sharing their experience will send a strong message to the student body. We commend Prof. John Belcher[18] for being such an exemplary faculty champion, and encourage more faculty to join the conversation.

Infrequently, support structures are used in a way that is not in the best interest of the student. Some faculty have strict policies regarding excused absences from class or alternative assignment deadlines to require authorization of authorities like S^3. Although these resources are valuable for faculty in terms of substantiating legitimate illness and excused absences (like job interviews), they create the impression that these resources do not exist for the benefit of the students. Additionally, in cases of unexpected illness, traveling a significant distance to MIT Medical or S^3 poses a significant barrier to health for the student, especially when such a circumstance can be substantiated by other members of the campus support network such as GRTs. Campus support resources should work for the student, in a format and frequency of their choosing, and we recommend against any faculty or administrative policies that force students to utilize these resources in certain circumstances, because it creates an atmosphere of distrust and a barrier to utilizing these resources when students truly need them.

[18] http://tech.mit.edu/V133/N13/belcherdepression.html

Summary of Recommendations

- Create a Standing Committee on Mental Health & Wellness that directly draws on Presidential level support. We feel that mental health and wellness is a campus concern that deserves consistent assessment and attention from the entire MIT Community.
- Implement a feedback gathering mechanism for each individual support structure at MIT to identify areas of unmet need, and areas for improvement.
- Increase awareness of campus support resources through a combination of publicity campaigns and campus events
- Work to resolve common campus confusions and misconceptions surrounding support resources. One recommendation is to maintain clear, concise, and regularly updated websites for each support office.
- Encourage utilization of campus support resources through removing campus stigma surrounding asking for help. This shift in campus attitudes should be guided by a collaborative body composed of faculty, students, administrators, and support providers.

Student-Administrator Engagement

Introduction

The values of collegiality and meritocracy on which the Institute is founded have colored not only our community's approach to research and scientific pursuits, but also its unique approach to decision-making. From the Institute's dual-governance model, which leverages the insight of the faculty in directing the Institute, to the degree of self-governance afforded to departments as well as many student activities and living groups, MIT is set apart from its peers by the extent to which every community member's contribution is respected and essential to overcoming the Institute's challenges. For students and faculty who are called by MIT's mission to work "wisely, creatively, and effectively for the betterment of humankind," participation at "home" is an important stepping stone to meaningful external impact.

MIT's dual model for decision-making creates a specific set of challenges for Institute leaders and decision-makers in particular. Administrators must take responsibility for both the decision to be made as well as the engagement process which informs the decision. Developing a process by which the entire community believes it has been appropriately engaged requires a skill set and an understanding of the Institute that even those with years of experience at MIT may find difficult to master. Yet, missteps in engagement are what evoke the most concern from students and faculty, since these failures may appear to strike at the heart of the Institute's most deeply held set of values.

In this report, we seek only to address the topic of student-administrator engagement, a topic which has been reviewed throughout the past decade. In recent memory, the Task Force on Student Engagement[19] was the last concerted effort between students, faculty, and administrators to resolve these issues. Unfortunately, the Task Force was unable to introduce substantive change, prompting a new set of recommendations from student leaders in the Faculty Newsletter[20]. Among these letters, and others to the Tech from the same period[21], a common theme arose: a sense of procedural fairness is crucial to building trust. When students believe they have been heard and engaged, that the process has been fair, and that they understand the logic of a decision, trust will be retained even if the decision contradicts student desires.

Building on these reviews, as well as input from current students and our own experience as student leaders, we have developed a set of principles which we believe characterize student goals for engagement and may help to inform future decision-making processes.

Our perspective on student-administrator engagement acknowledges the importance of the design of the input process alongside the factors of trust and perception in predicting overall

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[19] http://web.mit.edu/fnl/volume/204/martin.html
[20] http://web.mit.edu/fnl/volume/233/modi.html
[21] Editorial: http://tech.mit.edu/V131/N5/editorial.html, Dissent: http://tech.mit.edu/V131/N5/dissent.html

success. Specifically, we believe that trust can and will impact the effectiveness (and therefore should impact the design of the engagement process), and that the process design will impact perception and shape the community's level of trust in decision-makers going forward, as depicted in Figure 1.

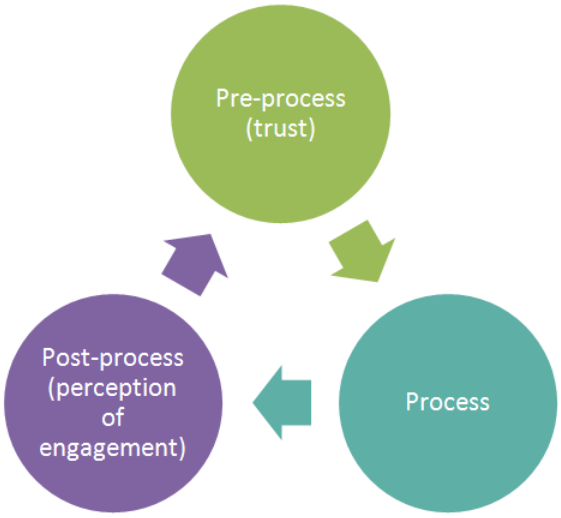

Figure 1: Cyclic interactions of trust, process, and perception in engagement

Trust

Trust is the condition where an independent party (trustor) relies on another party (trustee) to represent or act in the trustor's best interest. Usually, the trustor will in certain situations abandon control with the expectation that the trustee will act respectfully and responsibly. Trust is fundamental to cooperation, collaboration, and co-existence.

It is the trust students place on their respective leaders (students and administrative) that helps the student population advance in the long-term, but if there is distrust between students and the MIT administration, it undermines our ability to make mutual progress. While distrust for MIT administration isn't ubiquitous across the student population, past experiences with residential life, dining, and campus planning have sent the relationship between administration and students in a negative direction.

Where is trust most essential

To undergraduates, trust is most critical when it comes to residential life and "small families" as defined on page 59. This is likely the case because dorms and FSILGs are the most personal, private, and controllable facets of undergraduate student life. Residences serve not only as literal shelter from the elements but social foundation and psychological protection from the occasionally overwhelming and unexpected challenges of MIT. Thus, in order for the MIT community to prosper and continue to succeed, residences (dorms and FSILGs) must trust and be trusted by those elected to oversee their operations. Trust must first exist at the top, between DSL and students, before it can be expected to exist sustainably between hired staff and students.

Students have concerns regarding a growing trend to police and parent residential life in what has been termed the *In loco parentis* (in place of the parent) approach to student life management. Students also question the recent encroachment of administrative influence into the private homes and lives of students. This recent DSL thrust demands careful scrutiny in spite of good intentions.

Moving down the DSL ladder, trust must exist between the residents (of dorms and FSILGs) and the structures (dining) and personnel (GRTs, RAs, RLADs) placed there to serve them. People or services deployed in dorms that either infringe a perceived cultural norm or were implemented via a failed process may experience failure due to a lack of trust. Though the appropriateness of cultural norms changes with time, amendments to residential life that have not been diligently vetted and owned by the residents may result in equally unproductive outcomes while simultaneously degrading the levels of trust between students and administration.

In contrast to the undergraduate body, graduate students generally do not harbor long-term concerns regarding trust of administration. In particular, the greatest areas for trust in a graduate student's life pertain to their relationships with their lab mates and advisor(s) – both of which are highly variable and dependent on individual relationships. This is likely the product of graduate students being both more focused on their research as well as less centrally plugged into Institute services and resources. Having said that, there are a number sensitive areas within the graduate community that have historically proven to be flashpoints. First, graduate students have expressed repeated discomfort with campus planning processes relating to both the design of residence halls as well as repurposing of community space. Recent examples of the former case include the design of Sidney-Pacific and New Ashdown House — both failed to initially take into consideration the community and social needs of the graduate community. With regards to campus planning, graduate students have expressed repeated concern around the repurposing of Walker Memorial, a home of graduate life and the Muddy Charles Pub, as well as the continued development and gentrification of Kendall Square. Finally, although much of graduate support is decentralized and entrusted to departments, certain services and resources that lay outside the financial scope of a department (e.g. childcare, international student support services) have historically taken much lower priority and been poorly supported financially. As a result graduates have become skeptical at the Institute's interest in servicing these needs.

Commonalities between the undergraduates and graduates are that they have relatively strong trust in the Office of the President as well as their respective Deans' offices (DUE and ODGE).

Why trust breaks down

From the administrative side, trust generally breaks down due to a flawed process, either actual or perceived. As noted in the following process section, the thoroughness and delicateness with which administration needs to approach engaging the community is likely variable and dependent on the sensitivity of the issue at hand. Nevertheless, a failed process is often just as damaging to trust as a failed policy. Next, administrators must recognize the clear, representative

structures that have been democratically created to speak on behalf of students on different issues. Administrative ad-hoc engagement outside of these channels can deteriorate student-administrative relations if decisions are justified on the perceptions of unvetted and unaccountable student representation. Finally, the MIT administration is sometimes overly sensitive about confidentiality of data as well as discussion. Such a disposition immediately creates a feeling of distrust and ill-will and simultaneously inhibits elected student representatives' abilities to accurately inform their constituencies of important and correct information. A healthier balance must be struck between the need to keep sensitive information private and the need for student representatives to remain accountable and informative to their constituencies.

From the student side, trust generally breaks down due to a default skepticism that MIT administrators can know what is truly best for students, particularly those recruited from outside the Institute. This is likely a product of skepticism carried over from previous failed processes as well as an intrinsic trait of students admitted on the basis of their curiousness and questioning nature. Students have repeatedly remarked that they believe "administrators *believe* they are working in best interest of the student". The implication of this statement being that intentions are generally good even in cases when the decision has negatively impacted student life. The other manner in which trust can break down on the student side is related to rashness in action or circumvention of process. Notable examples include when, during the RLAD debate, students very publicly distributed the letter leaked by an undisclosed faculty housemaster or when, during orientation in Spring 2011, inappropriate personal remarks were leveled at administrators within DUE. Thus the students can compromise trust from the administration by being an unpredictable and undependable partner.

In recent months, student-administrative trust has experienced a downward trend mostly due to the tensions arising from the RLAD process and implementation. On one hand, students appear justified in having concerns regarding the timing, speed, and vetting of RLAD implementation considering the fact that it greatly impacts undergraduate residential life. On the other hand, the DSL and Chancellor's office have also experienced a betrayal in the leaking and spreading of their letter and the unplanned need to respond quickly and clearly with implementation before they may have otherwise done so. It is clear that no single party is wholly at fault and that the mistakes made in this process clearly enunciate those stumbling blocks just discussed.

Rebuilding Trust

Rebuilding trust first requires the mutual acceptance of historical mistakes. Thus, both the administration (DSL/Chancellor) and student body need to publicly accept historical failures in fostering meaningful engagement. Though we do not believe there is a simple step-wise solution to solving the trust issue, we believe the following recommendations will point us in the right direction:

Recommendations

1) Involvement of relevant and elected student representatives at the idea conception stage rather than just the solution vetting stage.
2) Administrators should relax slightly from their culture of confidentiality. Simultaneously, students must practice more discretion, balance, and respect in how and when they publicly discuss concerns.
3) Important decisions on issues pertaining to student life should not be made or implemented during recess months.
4) MITIMCo's mission should be clarified.
5) A formal statement from high-level administrators about their view on Student Life should be drafted, with special focus on students' small families. Simply putting into writing that the MIT administration actively values the unique student-generated cultures in dormitories and FSILGs would go far in assuaging many students' fears about the direction of MIT's student life policy.

Process

Triage

The optimal level of student engagement on Institute decisions will vary depending on the scale, scope, and domain of the decision. As mentioned in our previous report, one of the most important considerations is whether a decision impacts a core aspect of a students' support network on campus. For example, a decision impacting a student's living group, student group/ club, athletic team, or faith group is often much more important to a student than a decision regarding more general, non-specific programs, activities, and spaces on campus. Further, it is also key to separate students' interest in contributing from their ability to contribute—namely, recurring issues with short-term impact are often easier for students to deliver intelligent feedback, while issues such as capital planning may require more information for students to provide the input that can be of value to the Institute (and future students). Finally, we must note that undergraduate and graduate students, despite many similarities, do differ in notable ways on their expected level of engagement and ability to offer feedback. However, even with these criteria in mind, it is always best to work closely with students' elected representatives (GSC, UA, DormCon, IFC, Panhel, LGC, ASA) to determine the best approach to solicit student feedback.

Small Families

"Small families" are the primary lens through which students experience the Institute, including students' living groups (Dorms and FSILGs), student groups or clubs, athletics teams, faith groups, or department. Undergraduates primarily identify their small families as their living groups or student groups, while graduate students more frequently cite their academic departments and living communities as their small families. These groups are "families" because they constitute a student's "home" on campus, and offer critical personal support—emotional,

academic, professional, etc—and make the MIT experience bearable. Further, as highlighted in our Educational Experience section, students also tend to find that these small families provide the framework for some of their most productive out-of-classroom learning experiences. Students benefit from a great deal of independence and autonomy in creating and shaping these small families and groups, and often come to take leadership roles in these communities.

Because changes are so deeply personal to students and because they themselves are often the change agents in these areas, when decisions impact these groups, there is a significant risk that decision-makers will be seen as having intruded upon a student domain. Therefore, it is critical that these decisions be made over a time frame that is long enough to accommodate close collaboration with students and substantial revisions to any initial concepts. Ideally, the administration should aim to solve problems *alongside* the student body and student leaders, and start the process of making changes with a *problem statement*, rather than a *proposed change.* Better process on decisions related to these small family issues is not only crucial to maintaining the trust of the student body, but will also result in more effective decisions. Again, as the change agents in these groups, student leaders are well equipped to discuss challenges and opportunities within their communities, complementing the outside expertise of administrators.

Campus-wide

Whereas students can easily offer feedback on issues affecting their "small families" broader campus issues involving programs, resources, and spaces are often more difficult to engage students upon for a few key reasons. First, while, by definition, the groups to engage on issues impacting students' families are rather simple to identify, they are much more unclear on cross-cutting issues such as GIRs, IAP, and physical community spaces (Stata Center, Koch Center, department lounges etc.). These engagement processes will likely require identifying stakeholders anew each time. Second, students unfamiliar with these types of issues may need assistance identifying the relevant aspects of the problem—including second order effects—before valuable input can be obtained. Finally, whereas almost every student may have an opinion regarding a change regarding their "family," not all students may believe that engaging on every campus-wide issue is a priority. Often, these issues are seen are seen as matters of institutional discretion. It is noteworthy to mention that student representatives as well as administrators face these obstacles to engagement, and therefore early partnerships in stakeholder identification and process design (often directly with the UA and GSC in this domain) can be beneficial.

Short-term vs. long-term impact

Students are only members of the physical MIT campus for a limited number of years, and while this fact means students have limited historical context, it also ensures up-to-date perspective. Student input can be valuable to short-term in addition to long-term decisions with the proper approach. Clearly, students can provide useful input on decisions with near-term impact—these decisions will affect them or students soon to follow. Here, it is most appropriate to encourage

students to consider their experiences and project changes onto students whose experiences may vary little from theirs.

On long-term issues, students must also consider which aspects will change due to external forces as well as balance competing constraints and options which may be unfamiliar to students (for example, capital planning). In these cases, it is important for decision-makers to elicit, not just *what* is important to students, but also *why* such features of a solution are important to students. In this way, decision-makers can place student feedback in the context of broader institutional priorities. Students are also often well-connected with their peers at other institutions (or attended others as well) and can contextualize proposals based on their social networks—only faculty with college students of their own and recently arrived staff can match this ability without cost. Also, fresh out of the admissions process, students are well-acquainted with many of the student-focused competitive advantages of other Institutions. Finally, engaging students on long-term decisions enables hands-on learning in a space of interest to students, and may encourage better long-term engagement with those students who ultimately become life-long alumni.

Process Design

While the details of the process will always be dependent upon the topic at hand, we believe that there are a number of key steps which should be common to all student-focused engagement processes. Our recommendations below are a first attempt to propose a framework which enables transparency and consistency through clear stages of communication and community discussion.

Initial Process Recommendations

1. Develop a clear statement of the problem to be solved

Students can provide the best feedback when partnership in reviewing the problem at hand forms the basis for decision-making. Providing a clear statement of the problem—and a single point of contact—is essential to ensure that all students understand the purpose and scope of the decisions under consideration. While it is important to substantiate the problem and offer sources where reasonable, great care must be taken not to state the proposed change in the problem statement.

2. Identify the key stakeholders affected by the decision

A comprehensive strategy for outreach is critical to developing the buy-in the community expects based on MIT's values. Many stakeholders may be obvious, but others may not be—administration should work with student leaders to develop a list of those groups to bring to the table.Genuine attempts must be made to raise awareness about the proposed changes among these stakeholders.

3. Clearly state a process for making the decision, including opportunities to provide feedback

A clearly stated process, based on the set of stakeholders identified, sets the engagement process apart as being a transparent, fair, and fully reasoned attempt to make sound decisions. This plan, along with the problem statement, should be distributed widely and can be invaluable later should questions arise about the final decision.

Particular attention should be paid to creating a process that is accessible to students. Major decisions, especially decisions which affect students directly, should not disproportionately be announced or made over the summer or during exam periods, and should preferably be made during the school year.

Students on committees should be selected using the Nominations Committees of the UA/GSC since these bodies are accountable to the students and officially represent the student voice; students should never be hand-picked by administrators.

4. Solution Development

Work with the community to develop solutions—choose committees (usually) to develop solutions. Publish timely minutes so that the solution development process is transparent and students can provide input. Welcome suggestions and solutions from across the MIT community, and investigate the most promising options.

5. Community Assessment

Have the community review the relevant proposals, presenting the analyses as appropriate. In particular, consider including a 60 day period of comment on any major proposed changes to Institute policy that are important to students' lives.

6. Implementation

Make the final decision regarding implementation and inform the community of the rationale if it has not already been developed. Create and disseminate a clear plan for assessment and continuous feedback for the solution in question.

Perception of engagement

When the community is engaged in Institute decisions, it is critical that the community feels engaged both during and after the process.

Visibility and openness to input during the process

It is important to maintain a sense of openness to input during a major initiative. This is achieved by creating tangible avenues for input (representatives on committees, websites etc.), but also by creating an environment where the community feels like their input is genuinely being valued.

Acknowledgement of input after the process

Perhaps the single most important factor in successfully engaging the community is ensuring that the community members know that they were heard, once the process is complete. Students want to know their opinions were considered, even if the final decisions made are not the same as what students might have initially proposed. When acknowledgement of feedback does not occur, the community is unable to appreciate the effort and consideration ascribed, and the well-intentioned engagement cannot cultivate trust.

This could be achieved in a number of ways. One successful approach is similar to that used by the Institute Wide Planning Task Force, where the report was opened up to the community for comment before being finalized. This example is noted with contrast to the MIT2030 process which, due to factors compounded by the intentionally guarded nature of capital planning, was greatly perceived to have been finalized before broader community discussions. The Presidential Search Process was an example of a high-profile decision, on par with campus planning, where it was not possible to overtly acknowledge community feedback, but through the engagement of faculty and students as representatives, this process was met with great approval by the community.

Theme 3: Residential Campus of the 21st Century

In the first two themes – Educational Experience and Community – we addressed tangible and immediately relevant aspects of the MIT experience as they pertain to today's students. In this, the third theme – "The Residential Campus of the 21st Century" – we take a longer-term view, addressing the broad-reaching goals, changes, and initiatives that will change the face of the Institute as a residential university in the next several decades. In examining this question, we address three areas:

1. **Global Impact and Partnerships**, including study abroad and other educational opportunities; international development and global impact; and partnerships with international institutions. Globalization is a fundamental reality, and will be increasingly important in the 21st century. How can we leverage our strengths to forge rewarding global connections?
2. **Space Planning and Physical Campus,** including community and academic spaces.
3. **Online Education and the Future of Residential Learning**, including the questions of what skills students will be seeking; what skills and knowledge we should provide; and *how* we should provide educational content.

Finally, we propose our vision for an **engagement platform**, similar to (or based off) the IdeaBank, which we envision the administration using to gather input from the community year-round. Gathering community input as a matter of course will make our ideas stronger, and will make members of the community feel that their ideas are being heard and considered. Furthermore, a revamped engagement platform will make it more possible to engage students at the "problem statement" stage of change, well before the "proposed solution" stage.

Global Impact and Partnerships

MIT has a long history of international activities and partnerships. These activities and partnerships give MIT an opportunity to engage with the world in a way that further amplifies its mission in the global sphere, while simultaneously ensuring that our graduates are well-equipped to navigate an ever-increasingly global world. Below, we divide MIT's international engagements into three sections, with the first two sections dealing with MIT programs and initiatives and the third dealing with MIT's partnerships with global entities.

These issues have been covered recently in great depth in three recent reports - the Global Council's "Mens et Manus et Mundus" report[22], the International Advisory Committee's (IAC) "Guiding Strategies for MIT's International Activities" report[23] and the final report of the Committee on Global Educational Opportunities for MIT Undergraduate Education (GEOMIT)[24]. Here we highlight some of the issues of most relevance to the student body.

Global Educational Experiences

This section pertains to all MIT programs and initiatives whose goal is to enhance the educational experience for current MIT students by exposing them to the world. We have already substantially covered MISTI and the study abroad experiences MIT offers (CME, graduate experiences abroad, etc.) under the first theme of the MIT Educational Experience. We believe that **promoting and fostering study abroad experiences** will be important in giving MIT students the global experiences that will allow them to develop 21st century leadership skills. We also recognize, as have other groups at MIT that have considered this issue, that there is a necessary balance between maintaining the rigorous quality of an MIT education while promoting a larger and more flexible number of study-abroad programs and options. Currently, expansions of departmentally-approved study abroad programs proceed in an apparently ad-hoc manner. Continuing to push for expanded options for MIT students to study abroad, while also recognizing potential tradeoffs in terms of quality of experience, will be necessary as part MIT's strategic educational vision. Further, given the fact that MISTI has expanded dramatically in participation over the last decade, **continuing comprehensive evaluation of MIT's available study and work abroad options** - and their efficacy for students - would be beneficial.

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[22] http://orgchart.mit.edu/sites/default/files/reports/20090901_Provost_GlobalCouncilReport.pdf
[23] http://orgchart.mit.edu/sites/default/files/reports/20090903_Provost_IAC_Report.pdf
[24] http://global.mit.edu/images/uploads/GEOMITFinalReport.pdf

Global Impact and International Development

The past 15 years have seen a marked increase in consciousness towards global development issues at MIT, among both students and faculty. Although fifteen or more years ago, something of a divide existed between MIT's engineering focus and an interest among students and faculty in topics such as international development, which perhaps found a more natural home in institutions with a stronger focus on 'softer' fields, MIT is now recognized as an institution that makes **unique and powerful contributions** in advancing solutions to global problems.

MIT can change the world by applying our intellectual resources to the world's problems, along axes that mesh well with our core strengths. **Further, the world can change MIT.** MIT students who have the opportunity to apply their engineering skills to social problems while in school are more likely to pursue careers with global impact. MIT researchers and faculty who are exposed to a wider range of problems are more likely to pursue high-impact solutions.

Two case studies, D-Lab and J-PAL, illustrate these ideas.

- J-PAL, based out of MIT's Economics department, pioneered the use of randomized evaluations (testing interventions using randomly-assigned treatment and control groups) to determine which social programs have the greatest impact on improving outcomes for those in poverty. J-PAL is very much an MIT innovation, and has had wide-reaching impact. Further, J-PAL takes on a relatively large number of MIT undergraduate UROPs, some of which go on to work in one of J-PAL's many international field sites after they graduate. J-PAL has also participated in undergraduate educational initiatives like the IDEAS competition, providing "Yunus Challenges" based around gaps discovered through J-PAL's research that might be solved using the ingenuity of MIT undergraduates. Thus, J-PAL has had a large impact on improving the work of those in NGOs and institutions like the World Bank, and has also had a large secondary impact on the career trajectories and interests of many MIT undergraduates.
- D-Lab, and associated initiatives like the IDEAS competition and the Public Service Center, provide resources, instruction, and work-abroad experiences to MIT engineering students who want to apply their training towards solving social problems. D-Lab, which recently won (with DUSP) a major grant from USAID to spearhead an appropriate technology initiative across several different universities, has incubated technologies such as more-appropriate and cheaper wheelchairs. D-Lab is focused first on inspiring and training undergraduates, and has had a powerful pedagogical impact. A challenge for D-lab has been scale-up - moving technologies from the incubation phase to production, manufacturing, and distribution. Clear-headed thinking about the role of

programs like D-Lab - are they intended primarily to be educational for MIT's students, or is helping the world the most important goal? - will help focus these programs inside MIT's strategic vision moving forward.

As MIT continues to strengthen its contributions to solving problems of global development, both the ways in which MIT can affect the world, and the ways that the world can affect MIT should be considered.

Global Partnerships

This section pertains to all of MIT's relationships with other global entities. The strategy and guiding principles behind MIT's international partnerships have long been studied.[25]

Most recently, the 2009 report[26] of **IAC** titled "**Guiding Strategies for MIT's International Activities**" proposed several guidelines for MIT regarding its international activities. PTAC's views on MIT's global partnerships are largely in line with this report.

One of the proposed guidelines was that "international initiatives should be based on strong faculty participation and leadership, and be established through an iterative process involving faculty and administration, **with student input where appropriate**." Historically, MIT has not solicited student input in its major international partnerships. As future flagbearers of MIT, however, students are directly and indirectly affected by how MIT chooses to engage with the world and whom it chooses to engage with, even if these effects might not be immediate or readily apparent. We would, therefore, recommend that the administration consider soliciting student input on major international partnerships in the future.

Another proposed guideline of the IAC report was that "MIT should develop targeted, long-term engagements in multiple regions of the world, **based primarily on their fit with MIT's core research and educational objectives** and on the capacity of these engagements for sustained success **at the frontier of innovation**." While it is certainly important for MIT to look at the technological problem being addressed, it is also important to also consider the broader **social context** of a partnership as well as how a particular global relationship might be viewed by

[25] http://web.mit.edu/faculty/reports/1991%20Skolnikoff%20Report.pdf
[26] http://orgchart.mit.edu/sites/default/files/reports/20090903_Provost_IAC_Report.pdf

faculty and students as something that might or might not be in line with MIT's core values such as meritocracy, inclusion etc.

MIT's global partnerships can be thought of as more than partnerships with only educational entities or educational initiatives. One of MIT's most important connections is its network of tens of thousands of **international alumni**. These alumni can be instrumental in keeping MIT connected with the rest of the world, and in acting as ambassadors for the Institute, as it tries to solve the technological challenges of our world. To this end, we would recommend that the Institute continue to strengthen its ties with its international alumni.

Campus Planning

Following the launch of the Second Century Fund Campaign in 1960, MIT's Cambridge campus grew and evolved more than any other period in Institute history. Nearly the entirety of East Campus, North Campus, and Northwest Campus were products of this visionary plan, which came to fruition over the course of nearly forty years of intentional development. From 1960 until 2000, a cohesive framework and long-term view for campus planning were pioneered and adopted by MIT's Campus Planning Office. Decisions on development were informed by diligent community outreach and independently evaluated via institutional research many years prior to the fundraising for a specific project. President Charles Vest noted "…members of the Planning Office…began their responsibilities by taking the long view – in some cases up to 50 years in the future". We owe much of MIT's, and the surrounding regions, landscape to their vision nearly five decades years ago.

As our campus transitions into the 21st century, it's critical to continue such visionary campus planning to ensure the relevance of the physical MIT campus for the next 50 years. As we move forward, it is helpful to think of non-facilities campus projects as those that either A) support the institute's academic/research mission, or B) support the membership of the institute outside of this mission. Specifically, *academic spaces* are those that serve a primary functionality of facilitating teaching or research whereas *community spaces* are those that are available for use by all and for purposes not primarily relating to structured education or research. For completeness it must be stated that these two spaces interact greatly with each other and frequently play supporting roles in each other's mission. For example, a great deal of education takes place in a residential community space and many long-term friendships and support groups are formed via small lab classes or in departmental study lounges. Having acknowledged that many spaces can serve both in the academic and community capacity, we will here subscribe to this distinction in order to segment the discussion as well as highlight the differences in engagement type and depth required for one versus the other. In addition, academic and community spaces also owe their existence to different champions and are subject to different use profiles making their upkeep and deferred maintenance functionally different.

Table 1: Examples of each academic and community spaces.

Academic Space	Community Space
Classrooms	Residences
Research Labs	Student Centers
Teaching Labs	Athletics Centers
Libraries	Student organization offices
On-campus study rooms and academic lounges	Programmatic and performance Spaces (e.g. La Sala, Walker, Kresge)
Computer labs	Lawns, greens, parks

Community Spaces

"Construction of new community space, including performance space and athletic facilities, student activity space, and general event space would help MIT remain competitive in attracting top students and relieve pressure on an otherwise overloaded system. "

Large Event Spaces

Considering MIT's renown for world-class facilities, it is rather surprising that one of MIT's scarcest physical assets may also be the most conspicuous. Large event spaces on campus are not only in short supply but also are also poorly equipped and particularly difficult to reserve. Because affordable spaces like La Sala de Puerto Rico and Walker Memorial's Morss Hall are in demand not only by student groups but also academic departments, alumni, and internal or external conferences, these facilities tend to be completely booked 6 to 12 months in advance. In addition, numerous athletic and performance arts groups require large areas for practice and rehearsal and are often forced to use hallways or lobbies when the larger spaces on campus are occupied in the "off" hours (10 PM to 2 AM). The 2012 Presidential Search report noted, "It is not uncommon to find groups of students dancing in open campus spaces at all hours of the night because space is unavailable otherwise."

The lack of large programmable space is particularly worrisome when viewed against recent proposals to repurpose Walker Memorial for Music and Theater Arts and convert Morss Hall into a tiered performing arts theater without any equivalent new space being offered in exchange. The loss of Walker Memorial and Morss Hall without new space being created would represent a

significant setback to the dozens of student organizations that call Walker home, eliminate available venues for dozens of large-scale student-run events and activities, remove the de facto center of graduate student life, and risk alienating the thousands of alumni that remember Walker as the locus of their student lives. Thus, given the preexisting shortage of large programmable event spaces and the importance these have for the community's well-being, this body recommends the Institute either protect current assets or investigate the creation of new flexible and commensurate spaces for student programming, performance, and conferencing.

The 2012 Task Force on Teaching and Learning Spaces remarked "There is a constant need for space at MIT and spaces that lack a powerful advocate are too easily absorbed for other uses. This is a particular problem for common spaces that are vital to the collective mission of MIT." While it is easy to assume that the academic mission of MIT takes precedence over all pursuits, it is important to remember that the mission statement of MIT seeks to "combine rigorous academic study and the excitement of discovery with the support and intellectual stimulation of a diverse campus community." Existing and future campus spaces contribute heavily to this community, and future planning regarding repurposing and extension of campus spaces should continue to be guided by equal parts academic pursuits and community usage.

Kendall Entrance and Sloan Connection

With the development of Kendall Square as an innovation hub and the growing usage of the MBTA Red Line, the eastern entrance to MIT is increasing becoming the default face of our university. Regrettably, for those unfamiliar with MIT, Kendall Square provides little to no way-finding and greets visitors with shattered concrete and patchwork buildings rather than the impressive marble and neoclassical themes of the Massachusetts Avenue entrance. Students feel as though MIT could be doing much more to define and distinguish its campus. Similarly, the Faculty Task Force on 2030 Engagement noted, "there must be a gateway to MIT worthy of MIT and its aspirations, mission and standards of design excellence" and that this space "should also facilitate interaction with the rest of the Institute, which is vital to achieving the goal of a "One MIT" campus culture".

For students, a prominent entrance would serve not only as a face to be proud of but an attempt to activate property that could and should serve as a nearby destination for campus life in the evening hours. Currently, students tend towards Harvard Square, Central Square, or attractions in Boston for off-campus or after-hour socialization. Thus, the reinvigoration of Kendall Square via community-conscious development holds the potential to provide better services and social life to our students while simultaneously providing a safer and more convenient alternative to distant locations in other neighborhoods or cities. In addition, by intelligently redesigning the block bounded by Carleton and Hayward Streets and recapturing 100 Memorial following the expiration of its land lease, MIT may be able to finally physically weave east-side schools like

Sloan back into the common fabric of the Institute. Such a project could lay the foundation for improved integration and collaboration between members of Sloan and other schools at MIT.

Residential Development

A frequent comment among students that took prominence in the Presidential Search report was the feeling that "MIT is our home". Nowhere is this truer than the literal housing in which we live. Such sentiments are often accompanied by feelings of strong ownership over the on-campus houses and cultures, in spite of their technical and financial ownership by MIT Housing and Residential Life. Although every dorm hosts a different culture and supports student life in different ways, both undergraduates and graduates look to administration to entrust them and their housemaster teams with a vast majority of dorm life direction and decisions, rather than administratively-driven top-down homogenization of dorm culture.

Undergraduate

Dorm Renovations

The undergraduate dorm experience is one of the most unique and enriching aspects of MIT, but like all physical structures on campus they are deteriorating as cited in MIT 2030 deferred maintenance report and will need renovations to meet the evolving needs of the MIT student of the 21st century. MIT distinguishes itself in the level of independence it grants undergraduates living in many of the older dorms (East Campus, Burton Conner, Bexley) to truly shape their spaces into homes. As the main group that will inhabit these spaces, it is important that once renovations are complete the new spaces' be managed in partnership with the students. Undergraduates should be allowed to mold their space as a result of being empowered by the administration to take ownership over their residence. We understand MIT will make any final decisions, but encourage for there to be more of an open dialogue and partnership with students of the residence regarding policies, norms, and allocation of resources. The entire process of renovations must be transparent and carefully planned to address any latent distrust and skepticism carried over from previous administration driven projects like changes to dining and REX.

Renovations to dorms should aim at preserving MIT culture while fostering the development of a community. It is important that living spaces have several group study and meeting spaces as the separation of academic and community is becoming increasingly blurred. However, dorms are the source of relief and balance students search for after a stressful day so must not become overly academic or generic. Space for communal cooking, socializing, and lounging are needed. These spaces should balance both formal and informal spaces in hope of creating a comforting and supporting environment. The current approach of creating formal lounges and spaces as seen

in Maseeh has split student opinion. While there are some students that find a home in Maseeh, there is a student faction concerned with Maseeh's high costs, mandatory dining, and the lack of ability to alter the physical space. We recognize Maseeh attracts both incoming students and praise from the academic community, yet for some students it appears to be more of a hotel than a home.

Independent Living

Equally as important as the unique dorm experience is the FSILG experience at MIT. Currently ranked as the number one "College that Gets Greek Life Right," by Best Colleges Online, MIT's FSILGs are experiencing community-wide physical plant issues. Given that the FSILGs house a significant amount of the undergraduate population, MIT should better direct support to FSILGs in need of renovations. Occupying some of the oldest buildings on both sides of the Charles River, many houses are in need of renovations and deferred maintenance. Even more than in dorms, there is a concern that if MIT plays too large of a role in an FSILG renovation the houses operational autonomy will be lost as facilities and dining interject on the residents' wishes. While MIT allows alumni to donate to FSILG renovations via the IRDF on the MIT giving site, the FSILG community would benefit from direct Institute's financial support, its experience in renovations, and its close connections in the city. However, first the Institute must address the surfacing concern among FSILGs that Institute involvement will represent a shift towards a "dorm-like" physical plant and a mandatory dining plan.

Graduate

Maintenance and Repairs

MIT is well known amongst its peers for providing significant and high-quality graduate housing. In spite of this, concerns are mounting over the need to renovate a number of older residences as well as grow the current stock to help meet MIT's historically recommended and stated goal of providing on-campus housing to 50% of graduate students[27]. First, the dorms Westgate (1963), Eastgate (1967), and Tang (1972) have all come under scrutiny in recent years for their constant need of repair, repeated leaking or flooding, infestation issues, and water/electricity failures. Though most of these problems are to be expected of buildings in their 40's or 50's, these residences should be prioritized highly in the deferred maintenance schedule due to the unique and critical roles each dorm plays.

Eastgate and Westgate represent MIT's only family-accessible housing stock and therefore are essential to providing young families living on modest incomes the ability to live safely and

[27] First proposed in the 1960 Bush-Brown Committee on Graduate Center and subsequently offered to the City Council through verbal testimony. Councilor Ken Reeves is on public record and can be inquired with regarding this commitment to the city.

affordably in the City of Cambridge. These dorms also provide the additional benefit of greatly relieving the pressure on the single- and multi-family housing offerings in the rapidly developing City of Cambridge. Similar to our family dorms, Tang provides a unique service in that it is the most affordable residence on campus, costing approximately $800 per month as compared to newer residential options that can reach upwards of $1,250 per month. As a result of this depressed price, Tang hosts a significant proportion of international students and students on tight budgets resulting from partial or insufficient stipend levels. Tang therefore plays a critical role in allowing graduate students, regardless of financial background, to afford the residential experience and benefit from the resources so frequently tied to MIT's campus.

Construction and Design Considerations

Though graduates do not harbor the same concerns about the "hotelization" of their homes, they do frequently express concerns regarding the quality of construction of some of the newer dorms and the general availability of childcare to students with families. In the former case, residences like Ashdown and Sidney-Pacific have recently experienced prolonged and costly failures of important systems like HVAC units and water boilers. In a recent case (2011), Ashdown residents went for weeks with only intermittent hot water service during the peak of winter. Similarly, new air-conditioning systems will frequently become overloaded, fail, or cause leaking and water damage on a nearly annual basis. As a result, students have expressed concerns regarding the quality of construction of their buildings and fear that many decisions regarding housing infrastructure have been too aggressively "value-engineered". Given MIT's mounting deferred maintenance, it is recommended that greater investment be made in the planning and development of buildings in order to save on costs in the long-term.

For the students living in the family residences, a common complaint outside of the aforementioned maintenance issues pertains to the availability and affordability of childcare on campus. Though recently built childcare centers are greatly increasing our stock of childcare, policies that reinforce preferential treatment of faculty children over student children exacerbate a preexisting child care shortage in the City of Cambridge that is going to be further complicated by future gentrification of the city. For this reason, it is recommended that future residential development consider the creation of additional childcare slots that are readily available to students with children.

Housing Expansion

Although MIT is well-known for providing significant levels of high quality graduate housing when compared to our peers, it is also uniquely positioned in a city that is rapidly gentrifying and a housing market that has experienced upward rents and falling vacancy rates more than most others in America. For this reason, MIT needs to think preemptively about insulating itself from large market fluctuations. Respected non-profit publications, city planning boards, and internal institute publications have all clearly and unambiguously called for attention to be placed on the provision of additional graduate housing. The MIT Faculty Task Force on 2030 noted "MIT needs to carefully consider the need for additional campus-serving housing, especially for

graduate students." Others have identified the variable flux of graduate students from year to year as placing pressure upon and destabilizing local housing markets. From a student's perspective, on-campus rents are increasing, on average, faster than stipends and off-campus students are having an increasingly difficult time finding an affordable accommodation within the City of Cambridge. For these reasons, it is recommended MIT reopen discussions on the amount and affordability of on-campus housing and the degree to which MITIMCo plays a role in creating low-income or affordable housing off-campus.

Student Centers

Undergraduate

The current Student Center is in pressing need of renovations and repurposing. The current layout of space does not address needs of the modern student. There is a need for better-lit open spaces for students to work or just unwind between classes. The student center tries to meet the needs of the entire community, and thus has lost sight of student needs and become more of a community center, addressing the needs of alumni, merchants, and Cambridge residents at the expense of its student focus. To address this, any student center renovations should include student input from the beginning. Once completed, student governments should have a role in space allocation to student groups, third party vendors, and institute offices. For example the student center should house offices that are relevant to students like the FSILG office, which was recently moved to W59 with Residential Life.

Currently the fifth floor of the student center is the most used by undergraduates. At any time of the day, one can find students in the reading room or in the large Athena cluster. While these spaces are great, students would greatly benefit from their enlargement. Students frequently scouring the 5th floor looking for a spot to work eventually give up and move to the 4th or 3rd floors, where most space is already being used for group activities. Ultimately, students end at the first floor, where studying is made difficult by the heavy traffic, loud vendors, and crowded dining spaces. Many times on the weekend the student centers first few floors are overcrowded with visitors, community members, and other conference or sport tournament attendees. While we welcome these people into our campus, the frequency and volume of these visitors does take a toll on the MIT students' ability to see this facility as a true student center. The third floor is underutilized by students due to the rooms being locked when not in use and its 4th floor is not laid out efficiently and is not conducive to community development. In addition, as the MIT curriculum evolves into a more team centric model, there is a need for more group study spaces on any and all the floors. As technology grows in capacity and accessibility the need for desktop computer labs is dwindling. Spaces like the 5th floor Athena cluster could be optimized by reducing the number of Athena stations and adding large tables for group study to accommodate more students.

Graduate

Though the existing MIT student center is meant for all students, it is primarily utilized by the undergraduate population as it nestled within an undergraduate residential portion of the campus and maintains offices of a large number of undergraduate-dominant groups. Even if the student center were renovated and refit to accommodate more and a larger diversity of students, there would still likely be a need for a graduate-specific space on campus. This is likely because graduates have historically requested thesis-writing labs, A/V equipped seminar rooms, TA grading spaces, pubs and cafes, and large entrepreneurial collaboration or start-up spaces apart from undergraduates. Such spaces are commonplace at many of our peer institutions and are often included in a physically separated and independent graduate student center.

Calls for a graduate center are not new -- in fact such requests for a "graduate center that would 'support graduate student life and foster contacts' can be found as far back as the 1956 Ryer Report to the President and Corporation, the 1958 Morse Committee Report on the Future of Graduate School, and the 1978 Dober Report on Graduate Student Life at MIT. Though similar requests have been made more recently, what is perhaps most poignant is that all of these historic recommendations came at a time when graduates made up a very small minority of the campus rather than today where they stand as the largest constituent group.

One exciting idea that merits further exploration is the creation of a combined graduate student - alumni - entrepreneurial facility that could collectively satisfy all of these needs and provide spaces for each that are highly noncompetitive and complementary with each other. Similarly, a new large programmable space could be deployed within such a facility to help remedy the previously noted lack of major event space. There exist many exciting opportunities to improve and enhance student life offerings while simultaneously creating solutions to related but hitherto unaddressed gaps in the Institute's space offerings.

Academic Spaces

A key challenge of the next decade and beyond will be to maximize the value of residential education, while also taking advantage of the transformative opportunities offered by new technologies whenever possible.

Academic spaces on campus are the critical complementary component to community spaces in providing a world-class educational product. We have comparatively fewer recommendations in these areas mostly due to the fact that students have less professional expertise in pedagogical methodology, spend less time in these locations, and therefore have less emotional attachment to these spaces. This reflects the expectations that students have upon the Institute for engagement. Namely, creation or renovation of community-type spaces should involve collaborative engagement as early in the process as possible whereas the development and deployment of new

academic facilities can likely rely on more traditional feedback mechanisms that may occur later in the planning process.

Classrooms

As MIT thinks about updating its classrooms, it is key to take the time to understand the MIT student of the 21st century. The current MIT student is always connected, constantly checking his or her email in class, reading the news, viewing the professor slides and taking digital notes in the same document with their laptop. Already the classroom has failed in its lack of outlets, adequate table sizes, and layout. With laptops and modern communications, there is no longer a need for a unidirectional educational setting. Moreover, as materials become available online more students are choosing to stay home and learn virtually. Many can watch lecture videos, take past exams, and review lecture notes all from their laptop at home without a need to come to class. While that is not to say MIT should get rid of classrooms, it does bring to question the structure and purpose of the classroom. There's value in considering alternative shape classroom like circular ones that cater to discussion more than lecture, especially given students can watch lectures online prior to class. In addition, smaller discussion classrooms would prove to be more flexible for groups meetings and study sessions.

Labs

Teaching labs are instrumental in many departments to complete the MIT mission of "mind and hand." In course 2, labs like Papallardo add real life designing, machining, and manufacturing experience to undergraduate students. While access to these labs in an academic setting is plentiful, access to them outside of classes is limited. There is academic value in allowing students access to these labs outside of a class to pursue their own projects.-Thus, creating entrepreneurial or tinkering sandboxes for creation and invention outside of the classroom would be a very strong complement to the innovative mission of our institute.

Group study/tutoring spaces

Group spaces at MIT manifest themselves in varying levels of formality and sponsorship. However, regardless of these two metrics, the linking characteristic is that students need more group study spaces of all forms and manifestations. There is a need for more casual group study spaces like in dorms and the student center, as well as more formal study spaces on the academic campus, in either department lounges or in libraries. In their recent remodeling, Sloan School of Management has tackled this group study space issue and has come up with a substantial amount of group study space. It has been so successful, that many undergraduates not from the Sloan School use the rooms for their own studying. The libraries have made some progress towards group study but their efforts only scratch the surface of our existing shortage of group study

space. Moreover, there is a need for groups study space during the late night, as scheduling group time during the business day or even early afternoon is nearly impossible given MIT student schedules.

A more formal group study space should be provided by individual departments to foster a sense of community and collaboration among students of the same course. Some courses excel at this while others fall short, and in some cases spaces are missing for either the undergraduate or graduate community. Through these joint study spaces, students of different years engage one another in an academic manner that isn't possible in the classrooms.

Offices

While this is extremely department specific, it is important that some standards be set Institute wide for graduate student offices. For many graduate students, an office space is the only space on campus they can truly call their own, yet many are not assigned an office until months or years into their program. Moreover, an office provides graduate students with an anchor on campus, helping them feel as part of the institute and enhancing their sense of community. Especially for graduate students living off campus, an office from the day they arrive would be instrumental to integrating them into the MIT community and fostering tighter bonds between faculty, students, and the administration.

Online Education and the Future of Residential Learning

Introduction

For over ten years, MIT OpenCourseWare has published freely accessible content on the Internet, without significant damage to MIT's reputation as a premiere educational facility. This is largely because OCW has largely functioned as a knowledge repository rather than a learning center - limiting both its effectiveness and its threat to a residentially based education. Recently launched initiatives such as MITx, EdX, and Coursera are aimed at closing the gap between online information and online learning and thus pose a new and unique question: What is the value of a residential campus?

Simply put, we envision the university of the 21st Century combining physical and online educational techniques to impart undergraduates with the knowledge and skills they need to succeed in industry, and graduate students the techniques and practices to be a 21st century researcher.

21st Century Students and the Skills They Seek

Coming generations will increasingly see students who are accustomed not only to using computers, but using touch screens and being bombarded by information from a variety of sources and in different contexts. Information overload and shortened attention spans will mean that education may need to evolve to engage students—new educational techniques should be interactive, yet structured so that material is accessible, enjoyable, and delivered in a form students are able to understand so that they may manner that is direct to learn, and apply. For example, rather than choosing to utilize a traditional lecture style of classroom instruction for one hour, instead the same time could be sectioned into tighter concept-specific modules where students are provided with the background and context, the concept itself, and then challenged to apply the concept in an interactive manner.

The skills 21st century students will require, as future leaders in their industry, will be dictated by emerging trends in the professional world. Among these, we see rapidly changing technology, globalization, and the increasing size of datasets as driving key changes in the content and delivery methods of education in the 21st century. Based on these trends and existing strengths

of MIT's educational model, we believe that the following skill sets will be of interest to MIT in educating the next generation of students:

Areas of strength to be reinforced:

- **Collaboration**: Collaboration has long been a defining aspect of the MIT education, and the ability to work well in team-oriented environments is becoming a more critical part of the professional reality, from the boardroom to the lab bench. However, while MIT has a strong track record of encouraging collaboration on problem sets and project work, the trend towards interdisciplinarity in teams will presents challenges to the often discipline-specific settings in which students collaborate. The "world's great[est] challenges" in the coming century will require experts from a variety of cultural and professional backgrounds, and attention to this area is critical for a 21st century education.
- **Ability to continue learning**: As students, we hear frequently from alumni that the value of an MIT education lies in its ability to teach students how to "think," that is, how to approach a complex problem and begin devising a solution. Beyond this, they also note that an MIT education enables graduates to quickly learn new concepts and techniques, whether through the pace and minimal handholding of the MIT experience, or the focus on fundamentals that comprises the foundation of the education regardless of discipline. With the rapidly changing pace of technology, graduates will be increasingly challenged to develop new skills. For an MIT education, this will continue to mean that fundamentals in science and technology will remain important, however, we also believe that the Institute should continually review the portfolio of fundamentals to which students are exposed. Guiding questions such as "What technologies are shaping the world around us?" will ensure that the educational curriculum remains relevant to the reality and challenges of society.
- **Cutting-edge technology**: While a fundamentals approach to education is valuable, the dual mission of the Institute, "mens et manus," stresses the importance of practical context for the theory cultivated. As a leading research university, MIT is well suited to provide students with precisely the experiences necessary to set a baseline for the state-of-the-art in their discipline. Through application-oriented courses, lab classes, and real research experience, students are able to understand the capabilities and limitations of existing experimental and measurement techniques. Students with these experiences are able to become more effective, imaginative researchers and engineers bringing useful understanding to bear in academic or professional settings where complex and specialized strategies are required.

New Areas

- **Computer Programming**: In answering the question regarding the technologies shaping our world, we believe that an area for exploration is the increasing utilization of electronic systems and, particularly, software in every discipline. The only question remaining is whether future MIT alumni will be equipped to author (directly or collaboratively) the tools that define the state-of-the-art in their field or be at the mercy of these tools. Graduates of MIT with deep technical backgrounds will be, and are today, in the best position to make use of computers in problem solving. Further, they will find it transformative, if not mandatory, to have the background necessary to implement their analyses in algorithmic form or understand the processes involved. **As software evolves to become a defining aid of research, students across all disciplines will be well served by a basic knowledge of computation.**
- **Cultural intelligence**: The broader societal context and implications of scientific and technology-based endeavors are often just as important as the endeavors themselves. For example, as we have advanced in the areas of biotechnology and nuclear science, it has been necessary to develop policy regimes surrounding drug testing and the deployment of new power plants and mines. In this century, we will find these challenges even more prevalent and also that they are not limited to the borders of nation-states. Rather, as research, businesses, and economies become more connected, so too will the challenges of our broader society. It will be the responsibility of future scientists and technologists to inform the public about these challenges--at home and abroad--underscoring the need to equip students for diverse experiences after MIT.

Moving Forward: Areas of Improvement at MIT

Institute-Wide Curricula

"The mission of MIT is to advance knowledge and educate students in science, technology, and other areas of scholarship that will best serve the nation and the world in the twenty-first century."

The majority of undergraduates at MIT seek full-time employment immediately following graduation. We subsequently feel that an MIT undergraduate education should be designed considering the priorities of the 21st century workplace weighted equally with the needs of the 21st century academic researcher. The robust introduction to the sciences that undergraduates receive through the GIRs exemplifies MIT's distinct educational mission, and provides foundational knowledge in all areas of the sciences, leading to a more versatile graduate.

However, we (as well as the 2006 Task Force on the Undergraduate Educational Common) do not feel that the GIRs currently encompass all elements critical for success in the 21st century workplace.

It is important to note that we recommend further study similar to the Joint Task Force on the Undergraduate Commons to revisit the idea of revising the undergraduate GIRs. Although the revisions to the science, laboratory, and REST electives did not gain three-fifths of the vote of the faculty, we highlight that students supported the concept of adding "flavors" and choice to the GIRs, though were mixed on its implementation. PTAC is not in a position to quantitatively assess and comment on which specific subjects are required in new GIRs, but highlight new areas consistent with the 21st century student and work environment that residential learning is uniquely suited to tackle

- Fundamental Programming Techniques - The computer is the most widely used tool in science and engineering fields in the 21st century. Rather than be dependent on whatever technology "comes in the box", MIT students should have a basic knowledge of computer programming for engineering applications so that they may realize the full potential of this critical tool. Furthermore, many majors engineering majors require functional knowledge of programs like MATLAB, which will be enhanced by an institute, standardized programming baseline.
- Data Visualization and Presentation - As 21st Century learners are more accustomed to learning visually and from multiple media sources, MIT must prepare researchers to deliver content in the structure representative of the time.
- Foreign Language - With increasingly global collaborations and business endeavors, multilingualism is becoming a more valuable skill. While this skill may not fall strictly within the scientific curriculum, we feel it is important to highlight the importance of this skill.

It is also of note that the recent changes to the HASS requirement implemented for U2014 and later are generally well-received by the student body because it allows for a more streamlined and efficient completion of the distribution requirement.

We also would like to note that while many of these proposed curriculum changes are undergraduate focused, it is also important for graduate students to learn teaching skills. When developing academic support structures online resources such as MITx and EdX, we want to emphasize that no online form of instruction can replace the experience of teaching a classroom of students. Especially for graduate students considering careers in academia, the development of

these teaching skills primes graduates to establish meaningful teaching and mentoring relationships.

Teaching Pedagogies

With the advent of online learning technologies, information is becoming increasingly decentralized. However, the simple availability of knowledge does not replace classroom learning, as demonstrated by OCW. To most effectively enhance classroom learning, technology must be used intentionally and purposefully. Keeping in mind the quality of the 21st century student to seek multiple presentations of information, online information can be used to present information alternatively to as was presented in class, or to link to online resources. Furthermore, simple steps such as quickly posting video lectures, class slides, and handouts to the internal Stellar class website can serve as study material, or help students that miss class due to illness, etc.

Many new models for classroom education have been proposed as a result of new online educational tools, such as the recently popular "flipped-classroom" model, which promotes student-teacher interaction through students watching pre-recorded lectures outside of class. While this model may prove to ultimately be successful, we wish to express that changes to teaching pedagogies should be thoughtfully considered and tested before widespread implementation. Internal facilities such as the Teaching and Learning Laboratory are well positioned to inform this process. Finally, we recommend that students be engaged at every step of the process to revise teaching methods, because they are best positioned to comment on the preferences and effectiveness of learning in the 21st century.

Student Engagement Platform

One of MIT's greatest resources is the combined knowledge, expertise, and ingenuity of the students, faculty, and staff. As President Reif outline in his inauguration speech, the MIT community faces many challenges over the next decade, and it is the job of the community to rise to action in light of these challenges and address them.

One challenge in leveraging the expertise and wisdom of the entire community is providing a means for all members to be able to propose their ideas, commentary, and solutions. MIT has recently explored a new model of community engagement allowing for members of the community to provide their thoughts to the Institute-Wide Planning Taskforce that explored many new ways to appropriate resources across the Institute in light of the financial crisis. Through this community collaboration, the IdeaBank was born providing a way to encourage the MIT community to speak up and have their voices heard.

Leveraging the IdeaBank and other models for online community engagement, we encourage the Institute to launch an improved version of the IdeaBank in order to address the opportunities and challenges outline by President Reif in his inauguration speech as well as challenges that will arise over the coming months and years.

There are a few additional features that we believe if added to the IdeaBank will make it an even more powerful resource than it is today. For example, the US government has recently launched an online module (petitions.whitehouse.gov) that allows for any citizen to create a petition for action within the government. These petitions are then made public, and other members of the community can comment, vote and engage with these petitions. Petitions receiving a certain number of votes get an official response from someone within the administration. The new MIT IdeaBank should consider leveraging some of the social components utilized by petitions.whitehouse.gov. For example, one proposed model involves launching the IdeaBank with an overarching message relaying the president's challenges outlined in his inauguration as short prose snippets so that the community understands what was meant by these challenges. Members of the community can then suggest innovative solutions to these challenges, and then members of the community can engage with these solutions, provide feedback and also show support for consideration of these solutions. Those solutions receiving some amount of support would then be responded to by a member of the MIT administration or perhaps even the individual who proposed the solution may be invited to share his or her idea in a meeting with the appropriate administrator or during one of the president's office hours.

This is just one example of how the IdeaBank[28] can be reinvigorated for the next administration. The critical features we think that are important to introduce is to invite the community to engage in a healthy and open dialogue about the challenges and opportunities for MIT, and also provide a way to make members of the community feel that their ideas are being heard and considered.

[28] We are happy to note that the Institute Wide Task Force on the Future of MIT Education recently launched the future.mit.edu website, an IdeaBank-type portal to solicit feedback regarding MITx and the future of education at MIT

Appendix I: Charge

Appendix 1: PTAC charge

The proposed charge of PTAC is as follows:

1. To identify to the President existing MIT-wide issues as well as strategies for seizing upon new opportunity spaces.
2. To serve as a confidential sounding board to the President by providing feedback to questions and ideas.
3. To provide input into the long-term vision for student academic, research, and community life on campus.

PTAC is also tasked with the following deliverables:

1. Producing a public report of its recommendations to the President. This report is to be released upon committee discharge of the committee.
2. Providing monthly reports, verbal or otherwise, to the UA and GSC executive officers.
3. Publicly present and represent the target areas of the committee through GSC or UA general body meetings.

Appendix 1B: Initial Letter to Students (campus-wide)

5/22/2012

Dear Student Community,

It is with great pride and enthusiasm that we welcome Professor Rafael Reif as the 17th President of the Massachusetts Institute of Technology. We believe strongly that President-elect Reif represents that which is best in MIT—both in action and in spirit. His unbounded enthusiasm for MIT coupled with his ability to inspire through vision will position the Institute optimally to face the challenges that lie ahead. We thank President-elect Reif for his prodigious contribution to the Institute thus far and look forward to his forthcoming leadership of our great institution.

Our excitement in the naming of President-elect Reif is matched only by our gratitude to the hundreds of MIT leaders and community members who selflessly gave of their time in order to participate in the three month long search process. We would also particularly like to make note of the professionalism and dedication displayed by our joint student search committee. This group, the Presidential Search Task Force, dedicated hundreds of hours to solicit student feedback, synthesize important trends and topics, and articulate the student voice clearly to the Corporation-Faculty selection committee. We are indebted to them for their efforts and know their input was integral in the selection of a President who so clearly reflects the qualities desired by students.

Having now completed the search process, we are very pleased to announce that the Undergraduate Association (UA) and Graduate Student Council (GSC) will be forming a joint advisory group to provide candid student perspective on the areas in which MIT is doing well and the areas in which it has an opportunity to improve. This group, the Presidential Transition Advisory Cabinet (PTAC), will be officially formed within the coming weeks and will have membership drawn from across the community. We look forward to working closely with President-elect Reif and are confident that with continued student support we will be able to contribute to the common mission of advancing and improving our shared home: MIT.

Jonté D. Craighead
President, UA

Brian L. Spatocco
President, GSC

Appendix 1C: PTAC Formation and Application Email

6/12/2012

Fellow Students,

Over the last several weeks the Undergraduate Association (UA) and the Graduate Student Council (GSC) have been in discussions regarding the formation of a joint advisory committee to serve and advise President-elect Rafael Reif during the period of his upcoming transition this summer and early Fall. Having now confirmed the details of this body with President-elect Reif, we are happy to announce the official formation of the Presidential Transition Advisory Cabinet (PTAC), a committee that will include equal representation from both the undergraduate and graduate student bodies.

Prospective members of this body will be nominated jointly by the UA's and GSC's nomination boards and will be confirmed directly by President-elect Reif. Because the membership of this committee will be limited and participants will be expected to speak knowledgeably on a vast collection of topics relating to MIT policy, the application and interview process seeks to identify the most informed, experienced, and diverse membership possible. Service on PTAC requires an exceptional sense of personal responsibility and commitment to the student body and the Institute-at-large and as such will require significant amounts of time and effort on the part of all participants.

Applications to PTAC are now live and will remain open until June 22nd (11:59 PM). Applications will then be screened by the GSC nominations board and a short list drawn up for joint GSC/UA live interviews the following week (June 25th to June 29th).

Applications to join the PTAC are now open and can be found HERE[29].

PTAC's official charge and a description of structure can be found HERE[30].

The Presidential Advisory Transition Cabinet represents an excellent opportunity for our student community to connect with the President-elect as he begins his first year in office. In the weeks and months to come, we look forward to discussing how you can become involved in shaping the Cabinet's recommendations.

Jonté D. Craighead — President, UA

Brian L. Spatocco — President, GSC

[29] http://gsc.mit.edu/ptac-2012-application/
[30] http://gsc.scripts.mit.edu/wptest/wp-content/uploads/PTAC-Charge.pdf

Appendix II: Membership

Membership

PTAC was decided to consist of 4 undergraduate members and 4 graduate members. The presidents of the GSC and the UA were to be ex-officio members and the other 6 members were selected through the well-established GSC and UA Nominations Process. Table 1 lists the membership of PTAC; short bios for each member follow.

Table 1: Membership of PTAC (in last-name alphabetical order)

Graduates	Undergraduates
Bryan Bryson	Jonté Craighead (UA President)
Aalap Dighe	Alex Ghaben
Angela Kilby	Catherine Olsson
Brian Spatocco (GSC President)	Eduardo Russian

It was decided that PTAC would be an organizationally flat body, with no chair and with every member having an equal vote and say in the output of this body.

Bryan Owens Bryson is a 5th year graduate student in the biological engineering department, and a 9th year MIT student. He came to MIT from Houston, TX where he originally planned on coming to college, studying EECS, and then starting a video game company after graduating. Events took a much different path because MIT afforded Bryan the opportunity to realize a number of different potential futures including the one he is currently exploring. While lab and academics have been a critical feature of his MIT experience, through my time at MIT, he has participated in a number of activities and groups that have allowed him to interact with MIT's greatest resource, the people.

To Bryan, MIT is a bastion of knowledge and a superpower in the creative potential of hard work.

Jonté Craighead is a native of Rocky Mount, a small rural town in Virginia, and the first in his family to attend a four-year university. As a freshman at MIT, he chose Civil Engineering in order to obtain a broad-based education in engineering and to develop the skills necessary to apply systems thinking to society's most challenging problems. Post-MIT, his plans currently include working with businesses and governments to most effectively utilize technology in their operations. Thus far, he has been involved in a number of groups on campus, but has found his time with the Undergraduate Association and Tech Catholic Community to be most rewarding. As a member of the Presidential Transition Advisory Cabinet, he hopes not only to represent student opinion, but to leverage that opinion in providing actionable recommendations to the President as he steps into his new role.

Aalap Dighe is a Ph.D. candidate in the Mechanical Engineering department at MIT. He received his B.S. from Purdue University in 2009 and S.M. from MIT in 2011, both in Mechanical Engineering. His research is focused on designing new devices for better brain-machine interfaces.

Aalap has been actively involved in the MIT student community through the Graduate Student Council (GSC). He organized the 2010 MIT graduate student orientation, one of the largest student-run graduate orientations in the country. In 2011-12, Aalap served as the graduate student representative on the MIT Faculty Policy Committee (FPC). Most recently, Aalap served as the GSC vice-president (2012-13), where he set up a new internal advisory board, and was involved in range of advocacy areas from childcare to MITx.

Alex Ghaben is a senior at MIT (class of 2013). Hailing from a small town, Alex found MIT to be quite a change from her small town of York, Pa. Upon entering, she found herself overwhelmed with all of the new and unique opportunities at MIT and eventually found herself gravitating towards medically related activities such as MIT MedLinks – leading Alex to declare her courses of study as Chemical Biological Engineering and Biology. After graduation, she hopes to pursue a career in medicine or clinical research. In her free time, Alex enjoys music, art, running, and traveling.

Angela E. Kilby is a PhD student in the MIT Department of Economics, where she is a National Science Foundation Graduate Research Fellow. She is also co-founder of Adherean Inc., an MIT-fostered startup that joins behavioral economics and biochemical engineering to address low global rates of medication adherence. She is an incoming Graduate Resident Tutor at Senior House.

Prior to graduate school, Ms. Kilby worked as an economist for the Jameel Poverty Action Lab, with postings in Indonesia (at the World Bank) and Sierra Leone. She was a 2007-2008 Luce Scholar in Indonesia, working as an economist at a non-profit research foundation. She also worked in India during summer 2007, sponsored by MIT-India, and spent her junior year at the London School of Economics. She speaks Indonesian fluently.

As an MIT undergraduate, Ms. Kilby was actively involved in the leadership of her living group, pika, and remains active in the alumni association, Housecorp, as its current President. She also rowed varsity crew, played flute in MITWE, and was co-inventor of XoutTB, which won the Lemelson-MIT prize in the 2007 IDEAS Competition.

Catherine Olsson is a 6-3 and 9 double major, currently working on her M.Eng. thesis. She lived for four years at Random Hall and now lives at pika. During her time at MIT, she has been involved with student engagement and campus politics in a variety of capacities, including the UA Senate, the UA Finance Board, the UA Restructuring Committee, the Institute Subcommittee on the HASS Requirement, and the Random Hall executive committee. Other extracurricular passions of hers include doing community service with Alpha Phi Omega (a co-ed, non-residential community service fraternity), teaching and tutoring, singing, and tabletop roleplaying. Next year she will go on to NYU to begin her Ph.D. in computational neuroscience.

Eduardo Russian is a first generation college student from San Diego at MIT. He will be graduating this year as a 2A (mechanical engineering) with Product Design major. He has also completed a minor in Management at MIT and a minor in History Theory and Criticism (HTC) of Art and Architecture at Wellesley College. In his time at MIT, Eduardo has worked closely with residential life through the FSILG office as well as with different minority groups on campus. He was president of his living group, Theta Delta Chi. He has served on a few advisory committees, like SACDA, the CAC Student Advisory Committee, and the FSILG Strategic Planning Committee. In the past few years he has also held different jobs both around campus and throughout New England – he has worked at the Alumni Association, at Sloan in the Technology Services office, as well as at Pratt & Whitney in Connecticut, and last summer at the Boston Consulting Group (BCG) in their Boston office. After graduating, he will spend the summer working in Barcelona but will return to Boston in the Fall. He will be returning full time to BCG as an associate starting in January 2014.

Brian Spatocco is a fourth year PhD student in the Department of Materials Science and Engineering. Prior to MIT he received his B.S. in Materials Science Engineering from Rutgers University and his M.Phil. in Nanotechnology Enterprise from the University of Cambridge with the support of a Gates-Cambridge Scholarship and Tau Beta Pi National Record Fellowship. Besides his current position as President of the Graduate Student Council, Brian has served as Chair of the Housing and Community Affairs Committee (HCA) for two years, Chair of the Halls at Sidney-Pacific Graduate Residence, and Vice Chair of the Muddy Charles Board of Governors. Outside of MIT, he has served as a national advocate and lobbyist for higher education, an invited and keynote speaker at several student leadership conferences, and a student advocate in his local Cambridge neighborhood.