INSTITUTE

SPRING 2011

E C H N O L O G Y

150 Years of Innovation at MIT

M A S S A C H U S E T



T S

Left: Celebratory
banners in Lobby
7. Below: George
Akerlof PhD '66,
Koshland Professor of
Economics, University
of California,
Berkeley, speaks on
macro and micro
economics in Kresge
Hall as part of an
MIT150 symposium.
Photos: Dominick
Reuter for MIT
News.

O F

By Alycen Ashburn, MIT PARENTS ASSOCIATION

In 2011, MIT celebrates 150 years of progress toward making the world a better place using "inventional wisdom," a term coined for this occasion that refers to a blend of imagination and knowledge inspired by Mens et Manus (Mind and Hand), MIT's motto.

As with many MIT events, planning began far in advance with input from faculty, students, and staff. The planning and steering committees were charged with building a program to appeal to both the MIT community and a public eager to connect with the people and innovations that make the Institute unique.

The 150-day celebration of MIT's sesquicentennial anniversary began on January 7, 2011, when a new exhibit opened at the MIT Museum in the new Thomas Peterson '57 Gallery. This exhibit, the first to be curated by the collective intelligence of the MIT community, includes stories and objects that alumni, students, faculty, and staff helped select and gather.

The items on display include a robotic arm for use during surgery, a mechanical tuna designed to help determine how fish achieve speeds faster than science predicts, and an outer-space control system simulator. Visitors will also see simple displays with significant histories, such as a wooden model of the city of Boston used in the wind tunnel experiments that determined how to stop window panes from falling from the John Hancock Tower after its construction in 1976.

Those who live near or who have an occasion to visit Cambridge should not miss the MIT 150 Exhibition, which runs through December 31, 2011.

For those who cannot make it to Cambridge, there are many other opportunities to participate in this celebration online and in community clusters around the world.

On April 10, the Next Century Convocation will take place at the Boston Convention and Exhibition Center. The date commemorates MIT's charter signing on April 10, 1861. The name Next Century Convocation is a nod to the 1949 Mid-Century Convocation, which featured a speech by Winston Churchill. Speakers for the Next Century Convocation have not been announced, but they will be, "leaders who can speak to the themes of and the importance of MIT's role in setting an example for the nation and the world," according to the MIT 150 website. Admission to the Next Century Convocation will be complimentary, but registration is requested. More information on this event, including a registration link, will be available at http://mit150.mit.edu/events/next-century-convocation.

Viewing parties for the Next Century Convocation are taking place across the country, helping the MIT Alumni and Parents Associations reach their shared goal of hosting 150 events during the 150 days of festivities. MIT community members will gather in April to commemorate the signing of MIT's charter and celebrate the scholarly accomplishments of MIT faculty and students. These Regional Charter Day events are listed online at http://alum.mit.edu/networks/mit150.

Another momentous campus event will take place on April 30. MIT will open its doors to the public to highlight the exciting work done in MIT's departments, labs, and centers. The Open House will include lectures, tours, demonstrations, and other interactive programs. The work of current students will be highlighted with the hope of communicating the excitement of discovery to young visitors. Attendees can enjoy music and performances as they explore and also take part in a scavenger or trivia hunt.

Other major campus events include the MIT150 Symposia—covering the topics of economics and finance; integrative cancer research; women's leadership in science and engineering; the age of computation; exploration of earth, air, ocean, and space; and brains, minds, and machines—and the FAST Arts Festival, celebrating MIT's unique confluence of art, science and technology. Detailed information is found online: http://mit150.mit.edu/.

Invention and entrepreneurship in public service are a significant part of MIT's history and, to commemorate this, the Institute has developed the MIT Global Challenge. The competition connects and rewards teams of innovators who are tackling barriers to well being in communities around the world. These teams of MIT students and their collaborators (including alumni) can win up to \$25,000 to implement their innovative service projects. You can follow their ideas and progress on social media, but you can get more involved and offer needed expertise at http://globalchallenge.mit.edu/help/wanted.

MIT parents, alumni, students, faculty, staff, and friends can also participate in a local Day of Service to help their communities and raise the visibility of MIT in their region. A list of current projects can be found at http://alum. mit.edu/networks/mit150, and new project proposals are welcome via an email to mit150events@mit.edu.

The 150-day celebration will conclude during Tech Reunions with Toast to Tech on **June 4**, the Saturday evening that follows Commencement. Members of the MIT community will gather in Killian Court for a champagne toast and entertainment. Toast to Tech is complimentary, but pre-registration is required and will open in the spring.

Professor Eric Grimson Named Next Chancellor

Excerpt: February 10, 2011, MIT NEWS OFFICE

MIT President Susan Hockfield announced the appointment of Professor Eric Grimson as the next Chancellor of MIT. He succeeds Phillip L. Clay, who in November announced his decision to step down after serving in the role for nearly 10 years.

Grimson is the Bernard Gordon Professor of Medical Engineering and Head of the Department of Electrical Engineering and Computer Science.

"I am very pleased that Professor Grimson has agreed to take on this critical post," said Hockfield. "He has demonstrated in every imaginable way his commitment to ensuring the fullness of the educational experience of our students. His record of scholarship, teaching and service to MIT is measured not only in decades, but also in the thousands of students he has taught, advised and mentored."

"Professor Grimson will inherit an office strengthened by Chancellor Clay's wisdom and vision and that carries his legacy of connections and collaborations



Photo: MIT News Office

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across MIT and around the world. We are all greatly indebted to the Chancellor for his service," Hockfield said. Professor Clay will assume the role of Senior Advisor to President Hockfield and will continue his leadership of the Campaign for Students to its conclusion in June. He will also continue to serve as an MIT ambassador to the region and the world.

Grimson's selection is the product of a process that called on the Institute's faculty, staff, and student leaders. The Office of the President reached out to the presidents and vice presidents of the Undergraduate Association, the Graduate Student Council, the Dormitory Council, the Interfraternity Council, and the Panhellenic Association to solicit their recommendations. Those student leaders formed a committee of students to propose recommendations, which the student leaders presented in a meeting with President Hockfield. In addition, Hockfield met with dozens of faculty and staff leaders from across the Institute to hear their thoughts on qualities and attributes most important in the role.

Professor Grimson's appointment as chancellor will become effective March 1, 2011.

"I am honored and thrilled to be given this opportunity," said Grimson. "MIT has been my home for 35 years, and students have sustained and engaged me for all that time. Teaching them has been both an honor and a pleasure. In fact, I plan to continue to teach as long as my schedule allows, because I know no better way to stay close to students and to understand how best the Institute can serve

To read the full article online, visit http://web.mit.edu/ newsoffice/2011/grimson-chancellor-0210.html.

Academic Year 2011–2012

September

October

14–16 Family Weekend

- 24, 25 Thanksgiving Vacation

December

- 14 Last day of classes

January

- 8 Winter Vacation ends
- 16 Martin Luther King, Jr. Day—Holiday

February

March

April

8 Commencement

August

June

Need to know other schedules? Find key dates online: http://web.mit.edu/registrar/calendar/projected.html



http://alum.mit.edu/parents/FamilyWeekend

Save the dates!

Big Changes at Concourse

New Academic Offerings, Administrator Cheryl Butters Retires

By John Keck, CONCOURSE

Concourse was launched by a group of MIT professors 40 years ago as a learning community for freshmen and their instructors to explore the interconnections between disciplines as disparate as literature and physics, history and mathematics. This year new course offerings and the retirement of the beloved program administrator mean significant changes at Concourse.

Concourse Director Professor Bernhardt Trout has been working on twin goals since taking over in July 2009. He wants to reinvigorate the program while continuing to attract students who wish to understand the full human, ethical, and philosophical context of their scientific and technological work.

Despite Institute-wide budget cuts, Professor Trout has refreshed the humanities component of the Concourse curriculum with a two-semester philosophy sequence. The fall course, Becoming Human: Ancient Greek Perspectives on the Best Life, focuses on the origins of political philosophy beginning with the question of what makes the best human life. In the spring, Modern Conceptions of Freedom addresses the foundations of modern politics, especially liberal democracy as manifest in the American system of government.

As a freshman program, Concourse includes the General Institute Requirements of physics, calculus, and chemistry. The Concourse Integration Seminar bridges the humanities and the sciences by exploring questions about the origins of science and the distinct human choices that have produced modern scientific institutions. The aim is to give students the lay of the intellectual-historical landscape so that they can become better leaders, that is, people who can not only solve problems, but also identify which problems most need solutions.

In January, administrator Cheryl Butters retired after 35 years at the heart of the program. For many people around the Institute, she had come to symbolize Concourse. Many program alumni as well as Professor Bob Rose, a former Program Director, returned to pay their respects and reminisce at her retirement party in December.





Top: Cheryl Butters says farewell to program staff and alumni during a surprise party for her retirement. Below: Butters at work in 1980.

Cheryl spent the month of January before her official retirement day training her replacement, Paula Cogliano.

"She's left some big shoes to fill," says Paula, "and I'm excited to fill them." In addition to taking over Cheryl's duties, Paula will be helping to plan the festivities as Concourse this year celebrates its 40th anniversary.

For more information about Concourse, visit http://web.mit.edu/concourse/www/.



Commencement Resources

Congratulations, parents of graduating seniors! Are you ready for the big day? To help you plan your upcoming trip to Cambridge, the Parents Association has created an online timeline with tips and links to the resources

http://alum.mit.edu/parents/ParentResources/seniors

New Service Provides Expanded Medical Care for MIT students

By Kim Schive, MIT MEDICAL

Whether recuperating after a hospital stay, returning from a visit to Urgent Care, or in bed with the flu, students and other patients are being well taken care of by a new service at MIT Medical: the Community Care Center (CCC).

The five nurse care managers treat a few outpatients during the day in the CCC—administering intravenous fluids or providing wound care, for example. But much of their day involves phone calls—talking to patients to see how they're doing, with other medical facilities, with health care providers at MIT Medical and elsewhere, with visiting nurse associations, and perhaps with family members (with the patient's consent).

The CCC, located on the fourth floor of MIT Medical where the Inpatient Unit used to be, has been in operation since mid-October. In the first two full months open, its staff cared for a total of 379 patients. Among them were an undergraduate and a graduate student who returned to their dorms after being seen in Urgent Care for respiratory illnesses. "We were calling in and checking frequently and advising them what to do," said Kim Carroll, B.S.N., R.N., the CCC's lead nurse care manager.

When needed, the nurse care managers also visit recuperating students in their dorms or off-campus living groups to provide follow-up care and assessment after

students have been diagnosed and treated. This includes caring for recently hospitalized patients such as Beverly Cope, a sophomore in brain and cognitive sciences, who suffered a broken leg after being hit by a motorcycle. She was taken from the accident scene to Cambridge Hospital by ambulance and had surgery to have a titanium rod placed in the leg. After a two-night stay, she went back to her dorm room in McCormick Hall.

Carroll made sure that Cope got follow-up medical care as prescribed by her doctors, as well as other services she needed because of her injury. That meant helping her with transportation and working with Student Disabilities Services to make sure Cope's dorm was speedily equipped with grab bars in the shower and had the spring on one of the heavy bathroom doors removed.

Carroll subsequently visited Cope in her dorm to make sure everything was OK. "She was great—she brought some supplies and helped me figure out how to do the shower thing with a broken leg," Cope said. Since getting around on a snowy campus in a wheelchair can be "kind of a hassle," she noted, Carroll also obtained taxi vouchers for her and helped with other transportation arrangements, making things as easy as possible during a challenging time.

For more information, visit the MIT Medical website: http://medweb.mit.edu/

Class Connections Span Decades at MIT

By Alycen Ashburn, MIT PARENTS ASSOCIATION

Class Connections is a new initiative of the MIT Alumni Association that links the incoming MIT class with graduates who first entered the Infinite Corridor 25 and 50 years earlier. Current officers from the MIT classes of 1964 and 1989 traveled from towns across the U.S. to be present at the freshman convocation this past fall where, after a welcome by President Susan Hockfield, both class presidents greeted the newest members of the MIT community and introduced them to the concept of Class Connections.

"Class Connections will be a series of events, communications, and opportunities for our classmates to interact with you—the class of 2014—during your student years at MIT," Class of '89 President Michael Parzuchowski told the convocation audience. "We look forward to coming to campus to network, learn more about you, and offer our advice and support as you drink from the MIT firehose. We have been there and we survived. We are here to tell you—you will too!"

The year 2011 is significant in MIT history, making it an ideal time to launch this program. "The Class of 2014 and the Class of 1964 share an interesting connection," said Class of '64 President Bob Popadic. "You have arrived on campus as the Institute prepares to celebrate its 150th anniversary, much as we arrived for the 100th anniversary."

To keep the momentum following freshman convocation, the MIT Alumni Association planned a Class Connections gathering at Family Weekend this past October. In November, alumni later hosted students for a Thanksgiving meal. In the next three and a half years, the officers of these three classes will plan all events

Class Connections can provide both immediate and longterm benefits. "For students, there is curiosity about what life is like after MIT and what life was like at MIT for alumni," said Peter Muise, director of reunions and class programs. And, as students approach Commencement, they will appreciate having direct access to accomplished mentors.

Alumni, on the other hand, already possess a wealth of perspective but want more—a reconnection with campus and a window into how MIT's culture has changed. "The Class Connections program grabbed my attention as an opportunity to chat with my classmates of almost a half century ago, a chance to meet and hear the president—of whom I had read many good things—and a chance to enjoy some nostalgia along with a view of all that was new on campus,." says Robert M. Gray '64.

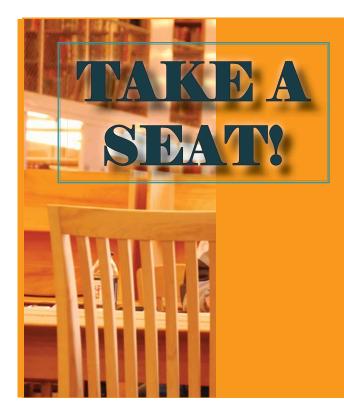
Paul Lubin '64 marveled at some changes in student life. "The new class seems much different from the shy,

·CLASS CONNECTIONS·

seemingly dazed-by-crowds freshmen of my class. In 1960, our parents were not expected to be on campus, and mine never were until my graduation. It's great that the Institute now appreciates that students need all the support they can get, and I don't mean only monetary. I did muse that the 50th reunion class when I was a freshman graduated before World War I. What do these kids think of my class?"

Leo Cardillo '64 said, "Listening to President Hockfield's comments in the Great Court [now Killian Court], looking out at all the faces of the incoming class—we knew that this was the beginning of something very special. Reflecting back on our years at MIT and projecting forward to the wonderful years ahead for the new class, one could not help but feel inspired, grateful, and proud to be associated with such a magnificent enterprise. And the best is yet to come!"

Stay tuned to see how the program grows. Activities have been held in the heart of the MIT network in Cambridge, but 2014 class officers see great potential for the program to develop regionally. That potential is literally mapped out on PlanetMIT, a web tool that shows how many alumni, students, parents, and volunteers live in an area and the regional MIT programs and opportunities available to them.



Want to Make a Difference for MIT Students?

Walk into any MIT library, day or night, and you will see nearly every table, carrel, and chair in use by students doing research, completing problem sets, or simply curled up with a good book while taking a break from academic work. The MIT Libraries recently initiated a program to replace chairs in their reading rooms—many of them over fifty years old—with comfortable and long-lasting study chairs.

Your Gift Will Benefit Students Immediately!

Your gift to the MIT Libraries Take a Seat Fund will be used to buy new chairs for the libraries' reading rooms and make a difference for students right away and long into the future.

Honor a MIT student, an Alumnus, or a Favorite Professor

Are you looking for a special way to honor your MIT student or graduate, a special friend or professor, or to memorialize a loved one? For a gift of \$1,000, you can name a chair in her or his honor. A brass plaque with the name of the honoree, your name, and the achievement you are honoring will be permanently affixed to a chair. And a handsomely framed duplicate of the plaque will be sent to you or the honoree as a lasting memento.

For more information on Take a Seat or other ways to support the MIT Libraries, please contact Steven Horsch at the MIT Libraries at 617-253-2123 or horsch@mit.edu. If you prefer to make a gift immediately, you can do so at http://giving.mit.edu/parents by directing your gift to the Take a Seat Fund (#2743248).

A Letter from the Parents Fund Chair

By John Begg '78, P'09, P'14, MIT PARENTS FUND CHAIR

When my son was accepted to MIT, I felt immense pride and the conviction that he would accomplish great things at such a remarkable institution. When he left for campus in August of 2005, I was excited as I imagined him on his way to discovering new horizons. However, I couldn't help the bittersweet feeling that, from now on, I would not be there to share his enthusiasm firsthand and provide him with a daily dose of parental encouragement. I couldn't shake the feeling that now his education was out of my hands, a relief in some way, but sad all the same.

I had no idea that, as early as his first summer at MIT, he would be working on cutting-edge research focused on improving minimally invasive procedures using surgical robots. The goal was to allow for increased precision during surgery and for dramatically reduced recovery time and hospital stay, thereby improving the overall patient experience. Thanks to a UROP grant, he conducted this project at Boston's Children's Hospital under the direction of an MIT professor and a pediatric urology surgeon—and he had only just turned 19! Where else than at MIT do undergraduate students get this kind of opportunity?

Today, as a graduate student and TA, my son helps teach a medical devices class within the Institute's mechanical engineering department. For the past several years, MIT has nurtured his passion, and his first UROP experience was a defining moment in helping him decide his future direction.

As I realized how instrumental this experience has been for him, I decided that one way to continue staying connected

and involved in the MIT educational experience would be to help fund UROP projects through the Parents Fund.

I discovered that when you give to the Parents Fund, you may choose to contribute to the UROP fund and, therefore, give a student a life-defining experience that may help him or her discover an exciting future career; you may decide to contribute to a specific varsity sport in which your son or daughter competes; you may choose to direct your gift to any other area that supports your student's passions; or you even decide to make an unrestricted gift. In this case, your contribution will be used where it is needed the most. Whatever your choice, regardless of gift size, each donation will show your support of the student community and make you feel closer to your son or daughter.

This year, our goal is 3,220 parent donors and \$1.5 million by June 30, 2011. To date, we are over halfway to our donor goal and well on our way to reaching our dollar goal. Please join us in supporting our students by making a gift online today at http://giving.mit.edu/parents.html. Click on Give Now, or send a check in the enclosed envelope. Your participation will make a difference, no matter the amount.

On behalf of all MIT students, thank you for your support!

John Berger

John Begg '78, P'09, P'14

Thank You, 2011 Parents Fund Committee!

Committee Chair

John Begg '78, P'09, P'14

Julie & Mario Alagna P'14

Niki & Joseph Cibor P'11 Raul & Maria Cosio P'14

Victoria Dauphinot & Kenneth Hubbard P'14

William Ebsworth & Anandi Pratap P'14

Jonathan Eddison P'11

Taro & Maureen Fujimori P'14

Dennis Linnell '76, P'13

Ruth & Delwin Ohrt SM'86, P'11

Jean & Rosellen Otrakji P'11

Roberta & William Pittore P'11

Timothy & Cindy Poon P'05, P'09

Reza Pourian P'13

David & Zoya Soane P'08, P'12

Sapna Sood P'13

Naveena & Nanu Swamy P'14

Roy & Amy Vegter P'11

Gary & Dolores Wakeman P'08

Shirley Zanton & Michael Whalen P'10

If you are interested in serving on the Parents Fund Committee for 2011–2012, please contact Parents Fund Assistant Director Renée Hites at rhites@mit.edu or 617-715-5201.

It's a Family Affair

Orthopedic Surgeon Joins Her Sons on Campus for an MIT Educational Experience

This article is reprinted with permission from the MIT Professional Education newsletter, published fall 2010.

On a Tuesday night on the MIT campus, students Raphael and Yolanda are cleaning up after dinner when fellow student Ilan stops by on his way home. This typical college scene plays out on campuses every day, only Raphael, Yolanda, and Ilan aren't typical students. Raphael and Ilan are brothers and Yolanda is their mother.

Ilan Moyer came to MIT first as an under-graduate, followed two years later by his younger brother Raphael. And while they both chose mechanical engineering as their major, they did so with very different futures in mind. Ilan wants to invent and make things. Raphael likes process engineering, manufacturing, and security studies/defense

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Dr. Yolanda Roth P'08, P'10 and her sons Ilan '08 and Raphael Moyer '10 enjoyed some family time during the academic year. Photo: Megan Davies.

work. He plans to serve in the U.S. Army.

Dr. Yolanda Roth came to MIT after a successful career in medicine as a specialist in musculoskeletal oncologic surgery and total joint replacement. In her words, she was "the first woman to complete an orthopedic surgery residency at Johns Hopkins and the first woman to do a clinical and research fellowship in the Surgery Branch of the National Cancer Institute." Yolanda both practiced and taught medicine before taking time off to deal with a family matter. A few years later she was ready to return to work, but her interests had shifted. So on a whim, she googled "career reentry" and discovered the MIT Professional Education Career Reengineering Program.

The Career Reengineering Program helps mid-career

science and technology professionals re-enter the workforce after a period away, refresh skills in order to stay relevant, or change fields of concentration. A few weeks after finding the program in August 2009, Yolanda packed the family minivan, drove from Maryland to Cambridge, and enrolled.

First, though, she asked her sons how they felt about her becoming a student on their campus. Ilan said, "It's cool... a little crazy." Raphael acknowledged that "it kind of took me by surprise. But it's exciting having her here. It's a great opportunity for her." Yolanda smiles when she remembers that Raphael only agreed to her coming on the condition she carry a backpack, not a briefcase, to make her a real student! Neil Moyer, her husband of 28 years, also offered support. "I'm blessed that my husband is very self-sufficient, good at cooking and

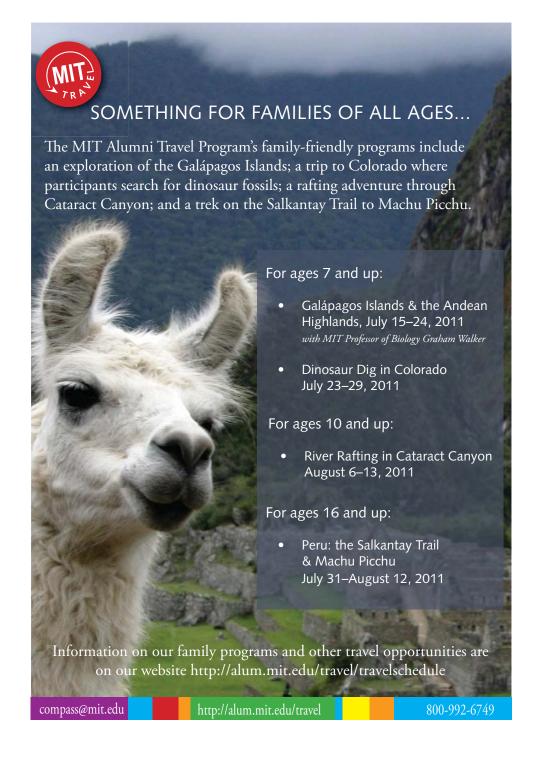
taking care of himself, and maintains a sense of humor."

Yolanda's career had always involved academia, but she hadn't been a student herself since medical school. She learned quickly that school had changed. First, she needed a laptop, then a PowerPoint tutorial and urgent brushing up on biochemistry, genetics, and logarithms. "Molecular biology didn't exist as a field when I went to med school... during one presentation the grad student indicated that she was going to skip certain topics because 'all of us had this in high school' and I hadn't had it in med school! For them it was second nature." But she persevered, taking classes, listening to lectures, talking to colleagues—becoming a student again.

While Yolanda may have been a student to MIT, she was still mom to her boys. Being on campus gave her a welcome glimpse into her sons' lives. "One thing about campus is that I could attend events like the 2.009 presentations," she says. "I could be there for Raphael." Raphael chimes in, "Ilan was one of the evaluators. So Mom attended, Ilan evaluated, and I presented." Laughing he added, "Hopefully Ilan didn't evaluate mine."

As the 2010 academic year ended, Ilan, Raphael, and Yolanda were all making big life changes. Ilan planned to work at a start-up until he begins an MIT master's program in mechanical engineering in the spring of 2011. Raphael will finish his bachelor's and master's degrees in political science this fall before reporting for duty as a second lieutenant in the armor branch of the army. As for Yolanda, she loaded up the minivan and made the trip home to Maryland where, with a new focus and renewed passion for her work, she plans to launch her next career. "I was like a kid in a candy store. There was more to do than hours to do it in. I am greatly enriched by the Career Reengineering Program and the friendships I cultivated with other professionals in my program. It has been an immense privilege to be at MIT."

For more information on MIT Professional Education, see http://professionaleducation.mit.edu.





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