Diversity Leadership Congress to meet next month

Greg Frost
News Office

More than 100 academic, administrative and student leaders will gather next month for the Diversity Leadership Congress, which represents an opportunity to accelerate MIT’s long-standing efforts at promoting diversity and inclusion by inspiring and supporting those most responsible for creating such a culture.

“The Diversity Leadership Congress is designed to acknowledge that progress on diversity at the Institute occurs locally,” said MIT President Susan Hockfield, who originally proposed the congress earlier this year. “We want to support these leaders and give them the tools for leading their local efforts and inspire them to do even more.”

All members of the MIT community are invited to participate in the Nov. 18 congress in a number of ways, including attending one of the remote viewing locations (the Mezzanine Lounge and West Lounge, both in the Student Center, as well as Room E25-111). Facilitators will lead group discussions at those locations and notes from the talks will be added to the congress proceedings. Members of the community may also submit questions for the panelists in advance of the event (diversityleaders@mit.edu). Individuals and groups will be able to watch video of the Congress once it is posted online following the event at the Congress website, http://diversity.mit.edu/congress.

Participants at the congress will also be

A giant leap for MIT: 4 alumni-astronauts will simultaneously be in orbit

Liv Gold
Alumni Association

In November, as many as 120,000 MIT graduates roam the earth below, four of their fellow alumni will, for the first time in history, be simultaneously traveling in space.

Michael Fincke ’89 began his ascent into space last month, as more than 120,000 MIT alumni associations. Fincke, commander of the Expedition 18 mission to the International Space Station (ISS), will spend the next six months aboard the ISS and meet up with colleague Gregory Chamitoff PhD ’92, who has served as a flight engineer and science officer on the ISS since June.

On Nov. 14, mission specialists Heidemarie Stefanyshyn-Piper ’84 and Stephen Bowen ENG ’90 will also head to the ISS via Shuttle Mission STS-126. Piper, Bowen and the rest of the crew plan to deliver equipment that will enable larger crews to reside aboard the complex.

Two MIT astronauts have been in space at the same time on several other occasions — during six space shuttle missions and one Apollo mission — but this is the first time four have been gravity-free at once. In fact, the alumni count could have been even higher.

Michael Massimino SM ’88, ENG ’90, ME ’03 will also head to the ISS via Shuttle Mission STS-126. Piper, Bowen and the rest of the crew plan to deliver equipment that will enable larger crews to reside aboard the complex.

We’re trying to give the audience a layered story that moves them on many different levels, some of which includes a bold ride through history and through science, but more importantly, through this deep human reality that scientists are not exempt from,” said Sonenberg, the play’s dramaturg.

The play has characters representing Hobbes (1588-1679), a philosopher and scientist, Robert Boyle (1627-1691), a philosopher, chemist, physicist and inventor, political leader Oliver Cromwell (1599-1658), and King Charles II, as well as other historical and fictitious figures.

“This is a moment when the world is turned completely upside down,” said Sonenberg, professor of theater arts and philosophy, creativity and family relations.

The Royal Shakespeare Company’s production of “The Tragedy of Thomas Hobbes,” written by Adrian Shaplin and directed by Elizabeth Freestone, will run through Dec. 6 at Wilton’s Music Hall in London, that examines themes of science, philosophy, creativity and family relations. The play gives a sense of the era’s political unrest and scientific excitement.

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October 29, 2008

TOMORROW

Events at MIT

W1 renovations paused amid economic uncertainty

Today

• “Mathematics of Sea Ice to Help Predict Climate Change.” Speaker: Professor Kenneth M. Golden, Department of Mathematics, University of Utah. 4-5 p.m. in 54-915. Part of the EAPS Department Lecture Series.


• Administrators working with students on next steps

Greg Frost
News Office

Construction on the W1 residence hall will be paused as a precautionary measure amid general economic uncertainty. Administrators and MIT remains committed to completing the $90 million renovation of W1, the new Ashdown House, but the current economic environment calls for thoughtful deliberation for the future evolution of the Phoenix Group, and to continuing to support and nurture a new residential community despite the delay.

“In the context of the continuing financial turmoil around Phoenix and MIT, it is appropriate for the institution to support its teaching and research,” said Chancellor Philip L. Clay. “Nevertheless, since the future of the economy remains unpredictable, this is a prudent moment to look for opportunities to preserve financial flexibility wherever possible. Vice Chancellor and Dean for Graduate Education Steve Lerman noted that W1 will still promote to an outstanding feature of undergraduate residential life at MIT. However, he noted that in the search for places to limit new commitments of capital, W1 presents an unusual opportunity because of the stage of the project: interior demolition is complete, but the Institute has not yet signed the contracts to begin full construction.

MIT has no plans to reassess the timing for campus development projects that have already advanced into the construction phase, including the Media Lab extension, the David H. Koch Institute for Integrative Cancer Research, the MIT Sloan building and garage, and the Vassar Streetscape. Teams of students, housemasters and professionals from the office of the Dean for Student Life and MIT Facilities have collaborated over the past year to develop plans for W1.

“We expect these productive collaborations to continue as we look forward to the future start of the work,” said Dean for Student Life Chris Colombo.

MIT Furniture Exchange holding open houses in early November

The MIT Furniture Exchange is celebrating its 50th anniversary this year, with three of its open houses on Saturday, Nov. 1 (from 10 a.m.-4 p.m.) and Tuesday, Nov. 4 (from 10 a.m. to 4 p.m.) and Thursday, Nov. 6 (from 10 a.m.-4 p.m.).

The exchange is a service project of the MIT Women’s League, and supplies MIT students, faculty, staff and alumni with reasonably priced furniture, while at the same time raising funds for scholarships with every dollar of its proceeds.

Visitors should bring with them the postcard recently sent out in order to receive an additional 10 percent discount on their purchases.

Last year, the exchange contributed $60,000 to the MIT Women’s League Scholarship Fund under graduate women, for more information about the event, or to volunteer/donate, please visit web.mit.edu/womensleague/ or contact Manager Judy Halloran at 617-253-4299 or fdx@mit.edu.

MIT students in running for inventors’ award

One recent MIT graduate and two current MIT graduate students have been named among 12 finalists in the National Inventors Hall of Fame’s Collegiate Inventors Competition. The award focuses on students whose inventions show practical applications to meet pressing needs in our society.

The finalists from MIT are:

• Greg Schrroll, who graduated in June with a bachelor’s in mechanical engineering, for his work on a spherical robot that uses a control motion gyroscope to store momentum for going up inclines and over obstacles.

• Hanjun Lee, a graduate student in the Department of Mechanical Engineering, for work on a device that can be inserted nonsurgically into the bladder via the urethra, releasing a controlled dosage of a drug into the bladder through osmosis.

• Timothy Liu, a graduate student at the Harvard-MIT Division of Health Sciences and Technology, who is working on an engineered bacteriophage — a virus that infects bacteria — that works in conjunction with antibiotics, making them much more effective. Lu also won last year’s $10,000 Lemelson-MIT Student Prize for inventiveness.

The grand prize winner, who will be named on Nov. 19, will receive $25,000.

Saxe named Packard fellow

MIT neuroscientist Rebecca Saxe is one of 20 young scientists to be awarded a 2008 David and Lucile Packard fellowships in science and engineering.

Saxe, an assistant professor of cognitive neuroscience, will receive an $875,000 grant over five years to study the circuits in the human brain that give rise to the high-level aspects of human thought.

Obituaries

Leona K. Loughlin, longtime Lincoln Lab employee, 83

Leona K. (Hanlon) Loughlin, who spent most of her 38 years of employment with MIT as a document librarian at Lincoln Laboratory, died on Monday, Oct. 20. She was 83.

Born in Arlington on May 10, 1925, she was raised in Lincoln, attended Lincoln public schools and graduated from Concord High School in 1943. During World War II, she worked as a machinist in the Raytheon Corporation in Waltham. She worked in the library at Lincoln Lab until her retirement in 1995.

She was involved in sports and enjoyed horseback riding, baseball and hockey and played in a volleyball league for Lincoln Lab. A longtime Lincoln resident, she enjoyed gardening and loved to shop for clothes.

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MIT neuroscience bolstered by new faculty, viral core facility

Deborah Halber
Office of News and Public Information

A facility exploiting viruses’ abilities to inject DNA precisely and efficiently into brain cells and two new experts on the molecular underpinnings of the brain's nervous system have arrived at MIT this year. Weifeng Xu and Yingxi Lin have joined the McGovern Institute for Brain Research as new faculty members, and are bringing with them a wealth of new ideas and expertise that will bolster neuroscience research at MIT.

Why viruses matter

Viruses are miniature scientists, with the power to insert DNA into living cells and transform the cells into valuable research tools. They work by infecting a cell, taking over its machinery, and forcing it to make more virus. Viruses can directly infect neurons in living animals, and they can modify the DNA in a living organism. This makes them especially useful for investigating the nervous system.

Xu comes to MIT from the Picower Institute for Learning and Memory at the Massachusetts Institute of Technology (MIT), where he joined as an assistant professor earlier this year. Xu is interested in understanding how neurons can interact to produce complex behaviors.

Lin comes to MIT from the McGovern Institute at Harvard, where she was a postdoctoral associate with Michael E. Greenberg, director of neuroscience at Children’s Hospital Boston. Lin has been studying the development of inhibitory synaptic connections in the brain.

How to protect your invention

The TLO encourages researchers with a potential invention to submit a Technology Disclosure Form — available for download at http://web.mit.edu/tlo/www/community/inn disclose.html — at the time a first rough draft is made of a potential publication, poster session or planned talk to anything other than all MIT audience. The form will ask for the anticipated date of first public disclosure.

Upon receipt of the Technology Disclosure, the TLO will evaluate whether the invention appears to have commercial potential. If time allows prior to public disclosure, the TLO will also ask a member of the inventing team — usually a postdoc or graduate student — to meet with the TLO’s search librarian to search for “prior art” (references, including patents, that may show prior invention by others). A patent application will be filed if no damaging prior art is found and if the invention is assessed as having potential commercial applicability.

“we hope to get Technology Disclosures at least a couple of months prior to the publication, but we will never ask the researchers to delay their publication. We understand the academic priorities,” said TLO Director Lita Nelsen.

“If necessary, we can file a ‘rush’ patent application — but more time allows better quality.”

MIT’s Technology Licensing Office is here to help

MIT’s Technology Licensing Office is here to help publishing academic papers is a top priority for MIT researchers, but they should also be aware of the need to protect their inventions with patents. That’s where MIT’s Technology Licensing Office can help.

The movement of knowledge and discoveries from MIT to the general public has had a major impact on economic development and job creation, both nationally and locally. Part of the reason for this is critical to these activities.

According to joint study of more than 1,000 MIT researchers, faculty, postdoc, research staff and students — are inventors, patent holders, or both — protected through the TLO. More than half of these patents will eventually be licensed to companies for development and commercialization with the hope of impacting the “real world.” The TLO grants more than 100 licenses a year, many involving a suite of patents; between 20 and 30 of these go to start-up companies.

Why patents matter

Companies’ inventions in “university stage” technologies are at very high risk, because neither the technical practicability nor the market potential of the technology has been established. Often very substantial financial investment is needed to bring them to market — with substantial risk that the investment will not pay off.

Strong patent protection is a company’s best protection from later competitors if the product is successfully brought to market.

In a global economy, worldwide patent protection is most valuable. But, except in the United States (and a few much smaller countries), any public disclosure before a priority patent is filed will bar filing for patent protection. Public disclosure can include data that is made available in publications, descriptions, poster sessions and even public talks.

Fortunately, only one priority patent need be filed in the United States before the public disclosure. This then preserves the possibility of later filing for international patents.

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What to do if you have already published

All is not lost if you have published before filing a patent application. Unlike in most foreign countries, U.S. patent law allows filing within one year after publication. Clearly, it’s better to have worldwide patent protection, but a U.S. patent will cover any products made in the United States, wherever sold, or imported to the United States, where it’s made.

It is also possible that your publication was not “enabling” — that is, did not provide sufficient detail to enable others to replicate your invention. In this circumstance, worldwide patent protection may still be available.

For further information, see the TLO web site at web.mit.edu/tlo or contact the TLO at tlo@mit.edu.
The amount of methane in Earth’s atmosphere shot up in 2007, bringing to an end a period of about a decade in which atmospheric levels of the potent greenhouse gas were essentially stable, according to a team led by MIT researchers.

Methane levels in the atmosphere have more than tripled since pre-industrial times, according to a study that was published this week in Geophysical Review Letters. The paper’s lead authors, postdoctoral researcher Matthew Rigby and Ronald Prinn, the TEPCO Professor of Atmospheric Chemistry in MIT’s Department of Earth, Atmospheric and Planetary Science, say this imbalance has resulted in several million metric tons of additional methane in the atmosphere. Methane is produced by wetlands, rice paddies, cattle, and the gas and coal industries, and is destroyed by reaction with the hydroxyl (OH) free radical (OH), often referred to as the atmosphere’s “cleaner.”

One surprising feature of this recent growth is that it occurred almost simultaneously at all measurement locations across the globe. However, the majority of methane emissions are in the Northern Hemisphere, and it takes more than one year for gases to be mixed from the Northern Hemisphere to the Southern Hemisphere. Hence, theoretical analysis of the measurements shows that if an increase in emissions is solely responsible, these emissions must have risen by a similar amount in both hemispheres at the same time.

A rise in Northern Hemispheric emissions may be due to the very warm conditions that were observed over Siberia throughout 2007, potentially leading to increased bacterial emissions from wetland areas. However, a potential cause for an increase in Southern Hemispheric emissions is less clear.

An alternative explanation for the rise may lie, at least in part, with a drop in the concentrations of the methane-destroying OH. Theoretical studies show that if this has happened, the required global methane emissions rise would have been smaller, and more strongly biased to the Northern Hemisphere. At present, however, it is uncertain whether such a drop in hydroxyl free radical concentrations did occur because of the inherent uncertainty in the current method for estimating global OH levels.

To help pin down the cause of the methane increase, Prinn said, “the next step will be to study this using a very high-resolution atmospheric circulation model and additional measurements from other networks.” But doing that could take another year, he said, and because the detection of increased methane has important consequences for global warming the team wanted to get these initial results out as quickly as possible.

“The key thing is to better determine the relative roles of increased methane emission versus an increase in the rate of removal,” Prinn said. “Apparently we have a mix of the two, but we want to know how much of each” is responsible for the overall increase.

It is too early to tell whether this increase represents a return to sustained methane growth, or the beginning of a relatively short-lived anomaly, according to Rigby and Prinn. Given that, said for pound, methane is 25 times more powerful as a greenhouse gas than carbon dioxide, the situation will require careful monitoring in the near future.

In addition to Rigby and Prinn, the study was carried out by researchers at Commonwealth Scientific and Industrial Research Organization (CSIRO), Geor- gia Institute of Technology, University of Bristol and Scripps Institution of Oceanography. These methane measurements come from the Advanced Global Atmospheric Spheres Experiment (AGAGE).

David Chandler
News Office

What you say in a conversation — whether it’s on a first date, a job interview or pitching an idea — may be less important than how you say it. The cues that may decide the outcome can be subtle that neither person in the conversation is consciously aware of them.

Whether or not you get the job, or the other person’s phone number, is very strongly influenced by unconscious factors such as the way one person’s speech patterns match the other’s, the like or dislike based on physical activity as people talk, and the degree to which one person sets the tone — literally — of the conversation. These subtle cues provide “honest signals” about what’s really going on and strongly predict the outcome, according to research by the MIT Media Lab’s Alex “Sandy” Pentland and his colleagues.

“Honest Signals” is also the title of Pentland’s new book about the research, being published this month by MIT Press. The research was based on tens of thousands of hours of data from devices about the size of a credit card that record movements and voices, which Pentland has dubbed “sociometers.” Using just this data, with no knowledge of what was said, Pentland could predict the outcome — whether a job offer, a second date, or investment in a business plan — more accurately than by using any other single factor.

Pentland says that this technology is recording and quantifying something that most people already understand intuitively. “All of this is sort of folk knowledge,” he said. “We all know it’s there, but we all ignore it.”

Pentland, who has a degree in psychology and experience in signal processing, zeros in on “a few things that seem to come up again and again” in deciding what aspects of human communication to monitor with the new devices.

The features he found that are highly predictive of outcomes, he says, “match the literature in biology about signaling in animals.” In fact, Pentland suggests, the nonlinguistic channel of communication that are measured by the sociometers may have started among our ancestors long before the evolution of language itself, forming a deeper, more primal way of understanding intentions, coordinating activities and establishing power relationships within the group.

“Half of our decision-making seems to be predicted by this unconscious channel,” says Pentland, the Toshiba Professor of Media Arts and Sciences. “That’s exactly the channel that you see in apes” as they coordinate their activities without the use of language.

Pentland’s research on these nonlinguistic signaling channels has been based on getting groups of people, such as attendees at a conference or employees of a company, to wear the sociometers over periods ranging from a day to a month or more. The devices, which include a microphone for recording voices and accelerometers to measure movements, are a bit smaller than the name badges typically worn at conferences. In future research, he says, the same functions could be monitored using specially programmed cellphones.

The data gathered from the devices can be used not only to predict the outcomes of specific interactions between people, but even the relative productivity of different teams within a company. “This information is not in the organization’s charts,” Pentland says. “This human side is missing from all traditional measures” of how groups of people work together.

The strong correlations between unconscious forms of communication and the decisions that result strongly undermine people’s perception that they are making choices based on rational, conscious factors, Pentland says. “My data shows that’s simply not true.” By understanding and measuring factors that are usually unaware of, he believes he is, “putting human nature back into our social lives.”

It may even help to predict the outcome of elections, he says. For example, by watching for the movements that signal the factor Pentland calls “influence” — the setting by one person of the tone and pace of a conversation — in a presidential debate, it is possible to see which person is dominant, regardless of what is being said. “The person who sets the tone,” he says, “is the one who wins, in every election since 1960.”

Tuning in to unconscious communication, MIT researchers discover revealing clues in conversations
McGovern Institute funds collaborative neurotechnology projects

The McGovern Institute for Brain Research has announced six new funding awards to develop technologies aimed at accelerating neuroscience research and developing new therapeutic approaches for brain disorders. The projects involve faculty members from seven MIT departments as well as researchers from other disciplines within and beyond MIT. “Neuroscience has always been driven by new technologies,” explained Charles Jennings, the MINT program director. “We want to take advantage of the extraordinary range of technological expertise at MIT to develop new methods that could transform the field.”

The MINT awards typically provide up to $100,000 for a year of seed funding to test innovative ideas that traditional funding sources rarely support, and to determine if they are worth pursuing further. To date, MINT has supported 11 projects, involving faculty members from seven MIT departments as well as a local startup company. “We’re on the lookout for new ideas and we’d be delighted to hear from anyone who wants to work with us,” Jennings said.

Two of the newly funded projects involve developing electrodes for long-term recordings in the brain. These have potential applications for studies of learning, and eventually for neuroprosthetic devices that could, for example, allow a paralyzed patient to control a robotic arm or a computer through mental activity. One of the major challenges in single-cell recordings is the ability to design novel recording technologies that can be conveniently packaged and inserted into the brain. The McGovern Institute has supported 11 projects, and additional funding sources rarely support these. A fifth project will use optical methods to manipulate cell signaling pathways in vivo, with potential use in identifying targets for drug development. In the sixth project, the collaborators will develop 3-D laser-based methods for dissecting single neurons from brain tissue. The ability to analyze gene expression and other biochemical processes in single cells is especially important in the brain, where cells of many different types are closely intermingled. Further details of these and previous MINT projects can be found at http://web.mit.edu/mcgovern/html/News_and_Publications/2008_seed.shtml.

MIT researchers have custom-designed nanoparticles that can deliver the cancer drug cisplatin specifically to prostate cancer cells. In this image, the yellow areas indicate prostate cancer cells that have taken up nanoparticles encapsulated with a platinum(IV) prodrug, which delivers a lethal dose of cisplatin—a drug commonly used to treat several types of cancer.

The new research was published online last week in the Proceedings of the National Academy of Sciences. Authors of the paper are Shanta Dhar, postdoctoral fellow in chemistry; MIT affiliate Frank X. Gu; Institute Professor Robert Langer; Omid Farokhzad, assistant professor at Harvard Medical School; and Stephen Lippard, the Arthur Amos Noyes Professor of Chemistry.

PhD candidate wins R.V. Jones Memorial Scholarship

Vijay Shilpikeassandra, a PhD candidate in the Department of Mechanical Engineering, was awarded the 2008 R.V. Jones Memorial Scholarship by the American Society for Precision Engineering (ASPE) for his paper titled, “A Flexure-based Mechanism for Precision Angular Alignment at Large Loads,” co-authored with his academic advisor Professor Kamal Yusef-Ismi. The award includes a $1,000 honorarium, was presented at the Annual Meeting of ASPE and the 12th ICPE at Portland, Ore., in October.

The paper, selected by the ASPE Educational Scholarship Committee from a pool of student applications, stems from Shilpikeassandra’s doctoral thesis research on the design and control of flexure-based nanopositioning systems. The research was conducted at the MIT Mechatronics Research Laboratory and was supported by the Singapore-MIT Alliance and a research grant from Haythornthwaite Foundation, American Academy of Mechanics.

Finkelstein wins prestigious women in economics awards

The Elaine Bennett Prize, an award presented every other year by the Committee on the Status of Women in the Economic Profession to recognize, support and encourage outstanding contributions by young women in the economics profession, was recently awarded to Amy Finkelstein, a professor in the Department of Economics.

Haldeman novel rights acquired by director Ridley Scott

Ridley Scott, director of films including “Blade Runner” and “Alien,” has acquired the rights to Joe Haldeman’s science fiction novel, “The Forever War.” The book by Haldeman, an adjunct professor in the Program in Writing and Humanistic Studies, focuses on a soldier who spends a few months battling in space, only to come home 20 years later to find a changed planet.

VP Grochow named ACM Distinguished Engineer

Vice President for Information Services & Technology Jerrold Grochow has been selected as an Association for Computing Machinery (ACM) Distinguished Engineer. The honor is given to those who “have achieved a significant accomplishment in, or made significant impact on, the computing field.”
Conference weighs Election College pros and cons

Stephanie Schorow
News Office correspondent

In a lively, sometimes contentious, conference at MIT on the traditions and lessons of the Election College, a group of scholars looked into what one called the "fun-house mirror of electoral politics" and debated its reflections of federalism, state's rights and equality.

Some participants in the Oct. 17 event, "To Keep or Not to Keep the Electoral College," which was co-sponsored by the Carnegie Corporation and the MIT Sloan School of Management, argued passionately that choosing a president by popular vote — rather than the electoral college — is the fairest way to go, because popular-take-all contests would up-shift the power balances among the branches of government, encourage disruptive third parties and diminish the power of ethnic minorities.

The greatest fear of the Founding Fathers was majority tyranny," said Joshua Bon, SUNY Cortland political science professor. "Our goal is not just majority rule, but majority rule with minority consent."

Others who chose a president by popular vote is fairer and would lead to greater voter participation. Currently, "There's an incentive to campaign hard in swing states and ignore others," said Northwestern Law Professor Robert W. Bennett.

Ahkil Reed Amar, Yale law professor, said the one-person, one-vote rule is the very foundation of democracy, all 50 states elect officials by simple majorities and "it works just fine." Vikram Amar, UC Davis associate dean for academic affairs, said that the current push for a popular vote — the National Popular Vote Interstate Compact, signed by Illinois, Maryland and New Jersey — did not require a Constitutional amendment to enact.

Several MIT professors discussed ways of combining features of both a popular vote and the Election College. Arnold I. Barnett, the George Eastman Professor of Management Science and one of the conference organizers, proposed a "weighted vote" system, which allows smaller states to retain their electoral clout. The chair of the conference's steering committee, Alexander S. Belyank, visiting scholar in the Center for Engineer-

-ing Systems Fundamentals, proposed that the president should be chosen by a majority of the nationwide popular vote and popular vote majorities in at least 26 states, even if his/her opponent wins the Electoral College. Alan Natapoff, research scientist in the Department of Aeronautics and Astronautics, argued the advantages of a system that would use actual turnout instead of population as the basis for calculating electoral votes, but would maintain the other main features — winner-take-all states and senatorial electoral votes — of the Electoral College. This would, he said, increase an individual's voting power in poorly contested states like Montana.

A chief discussion point was whether eliminating the Electoral College would create disruptions in close elections. "They are a stabilizing force in the system," said Senator John Breaux, one of the creators of the National Popular Vote Interstate Compact. "Voters don't want to see the system they know replaced with the unknown."

"The world needs more, not fewer, smart people who are trained to be leaders in management, especially now," said David Schmittling, the John C. Head III Dean of MIT Sloan. The new program, which creates a master of science in management studies degree at MIT, "will enable students to supplement the broad-based management education they receive in the outstanding MBA programs at the schools they already attend with the additional knowledge and management tools they can acquire at MIT." The degree program, Schmittling added, is an important component of MIT Sloan's ongoing efforts to build broad-based relationships with leading management schools, including the four participating in the program.

The new MIT degree designation will begin in the 2009-2010 academic year, with approximately 15 international students and an eventual enrollment of 40. "MIT already offers several master of science specifications. The new addition builds upon MIT Sloan's deep and varied ties to leading educational institutions around the world. "We are pleased to partner with MIT Sloan in this new double-degree program, which will enhance the capacity of our institutions to be the leading international players in educating truly global business leaders," said Bernard Ramanantsoa, dean of HEC Paris, a leading European business school.

The new degree program, said MIT Sloan Senior Associate Dean Alan White, "supports our global collaborations, which are all about ensuring our centre remains as a global university."

Robert C. Klemensky, dean of the SKK Graduate School of Business at Korea's Sungkyunkwan University, termed the new program "one of the most significant events in the development of management education, not only in South Korea but in the world." The new degree program, which will begin in the 2009-10 academic year, with approximately 15 international students and an eventual enrollment of 40, will build upon MIT Sloan's deep and varied ties to leading educational institutions around the world. "We are pleased to partner with MIT Sloan in this new double-degree program, which will enhance the capacity of our institutions to be the leading international players in educating truly global business leaders," said Bernard Ramanantsoa, dean of HEC Paris, a leading European business school.

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MIT Sloan Senior Associate Dean Alan White, said MIT Sloan faculty and students will benefit as well. "With business more global than ever, we need to do all we can to encourage connections between our faculty and students and those of some of the best management schools in the world," he said. "This initiative will open up opportunities for MIT Sloan to provide our students with the skills and knowledge they need to thrive in the global economy." The new degree program, which will begin in the 2009-2010 academic year, with approximately 15 international students and an eventual enrollment of 40, will build upon MIT Sloan's deep and varied ties to leading educational institutions around the world. "We are pleased to partner with MIT Sloan in this new double-degree program, which will enhance the capacity of our institutions to be the leading international players in educating truly global business leaders," said Bernard Ramanantsoa, dean of HEC Paris, a leading European business school.

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Members of the MIT community may submit one ad each issue. Ads should be 30 words maximum; they will be edited. Submit by e-mail to ttads@mit.edu or mail to Classifieds, 77 Massachusetts Ave, Cambridge, MA 02139. Deadline is noon Wednesday the week before publication.

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2001 TOYOTA COROLLA CE. Automatic. $1400, utilities not included. Contact: BThakker@comcast.net.

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NEWSPAPER AD
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FREE. Large wooden and aluminum desk, modern, with file cabinet and four drawers. Must pickup with truck, and desk legs must be unscrolled for removal. Call Mrs. Ash (781) 861-0472. Leave message if not home.

Pair of used Bose 201 Series IV speakers $50 or both. Zenith color TV $50 or both. VHS VCR $20 or both. Call Mark at ext. 8-0731.

Men's jacket, size large, brown, leather-look, below hip. $50. Call Ron at 781-395-1307.

FOR SALE
WANTED
Left and Right hinges for Sony VAIO A Series laptop VGN-A190L, Model PCG-905L, Call Mary Ann, Ext. 33293 or 508-653-7123. magicoreve@mit.edu.
DIVERSITY: MIT’s Diversity Leadership Congress to meet in November

Committee on Animal Care solicits feedback

This is a great opportunity to hear fresh ideas from outside MIT and then tailor them to our unique community.

Tom Kochan, professor of management

Panelists scheduled to appear include Phil Harlow, chief diversity officer at Xerox; Shirley Malcolm, head of the Directorate for Education and Human Resources Programs of the American Association for the Advancement of Science; and Michael Summers, a Howard Hughes Medical Investigator biologist at the University of Maryland who has been honored for his contributions in diversity mentoring younger students from underrepresented groups.

Small group discussions will address how MIT’s leaders can individually and collectively shape how they hear and begin shaping goals and strategies.

“This is a great opportunity to hear fresh ideas from outside MIT and then to tailor them to our unique community,” said Kochan. “Our goal is to help give people a better understanding of what is possible in their leadership roles and to discuss how we can make those possibilities real at MIT.”

A planning committee has been working since April to shape the event. In addition to Kochan and committee members include: Robin Chapman, manager of diversity recruitment in the School of Architecture and Planning; Chancellor Phillip Clay; Francine Crystal, manager of diversity recruitment in the Office of Athletics; and Terri Wiltgen, director of the Office of Diversity and Inclusion.

The council, sponsored by Vice President for Human Resources Alison Alden, consists of 16 employees from various schools, departments, labs and centers, who meet regularly to “identify, encourage and celebrate diversity initiatives, programs and practices for staff across the Institute”—as directed by President Susan Hockfield last spring.

The council has a full agenda, including addressing concerns related to equal employment opportunity and a focus on creating synergy among faculty, staff and student diversity management efforts. Three subcommittees have evolved from their meetings: communication and awareness, serving as a liaison to other MIT diversity-focused groups; data gathering; and benchmarking. Snapsptg is a webpage that describes all the council’s activities; in the meantime, e-mail info@mit.edu for more information.

A robust program at MIT Medical

As part of the Legatum Center, and Iqbal Quadir, founder and director of the Legatum Institute to champion a diversity and inclusion award through the Rewards and Recognition program.

Strength in differences: MIT Lincoln Laboratory

Lincoln Laboratory has been a busy place as well. Early in its tenure, Director Eric Evans formed a laboratory diversity committee and charged that group with advancing the professional staff and establishing best practices. Bill Kindred, Lincoln Laboratory’s diversity and inclusion officer, is hard at work in this arena, focusing on many initiatives. His most important tasks include a focused recruiting effort and educating the community as to why diversity is a benefit in the workplace, observing that “a team isn’t a strong team unless there are differences in thought.” Lincoln Laboratory celebrates diversity more regularly than most organizations. It has marked the transition from National Disability Month to Hispanic Heritage Month, and one of its big projects is about taking an offsite site on diversity and inclusion — a perfect communications vehicle for the Lincoln Laboratory community.

Joining forces for diversity

Among the activities at MIT Libraries, a recent event, in collaboration with Harvard College Library, is an example of outreach efforts toward a more diverse workforce. MIT Libraries and Harvard hosted participants from the Harvard Library Associates to-Institute to Reconnect a Diverse Workforce The goal was to highlight the opportunities that exist for librarians in dynamic research and teaching communities. Thirty new librarians or library school students from all across North America attended this two-day program.

New in HR

To build a more balanced and diverse workforce at MIT, HR provides support to labs, centers and offices by offering consulting advice, creating a pipeline for diverse candidates, and providing the resources to identify, discover and promote diverse staff. In short, HR is committed to working with all constituencies to achieve a diverse and inclusive culture.

Snapsptg of staff diversity efforts at MIT

Imagine a workplace where staff value differences, are committed to building a balanced and diverse community, and are focused on making the culture inclusive and welcoming. No need to imagine: Staff across campus are busy with efforts related to diversity and inclusion. Below is a snapshot of some of the work.

Council on Staff Diversity

The council, sponsored by Vice President for Human Resources Alison Alden, consists of 16 employees from various schools, departments, labs and centers, who meet regularly to “identify, encourage and celebrate diversity initiatives, programs and practices for staff across the Institute”—as directed by President Susan Hockfield last spring.

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Both sides of the Net

Hal Abelson, the Class of 1922 Professor of Computer Science and Engineering at MIT, and Harry R. Lewis, the Gordon McKay Professor of Computer Science at Harvard — co-authors of “Biased to Bits: Your Life, Liberty, and Happiness After the Digital Explosion” — collaborated on an entry in a series of policy and technology prior to the Nov. 4 election.

Question: Having examined the candidates’ platforms as posted on their respective web sites, can you assess whether McCain and Obama differ substantially on the issue of Net neutrality? Is the delivery of content should be treated equally regardless of source?

Abelson/Lewis: Yes. McCain explicitly rejects Net neutrality as a “prescriptive” measure, while Obama explicitly supports it. Obama speaks directly to the need for competition in Internet services, an important plank missing from McCain’s technology picture. McCain would regulate Internet Service Providers (ISPs) only to ensure consumer protection and child safety. He also offers that government should have a role as a service provider of last resort, if incentives to private industry fail to achieve universal connectivity.

Q: Obama’s online platform says he will appoint the nation’s first chief technology officer. What do you think of this plan?

Abelson/Lewis: Most federal agencies already have CTOs. While simply creating titles never solves problems, large organizations often suffer from inefficiencies that result from inconsistent technology solutions to related problems. For the U.S. government, there is a large opportunity to harmonize policies and practices in different agencies about such crosscutting issues as information privacy, transparent government operations, and modalities for citizen input.

Q: McCain has said he would seek a permanent ban on taxes on the Internet. What do you think of this pledge?

Abelson/Lewis: The freedom of the Internet from taxation (while allowing the states to collect sales taxes on Internet commerce) has stimulated the growth of the network to the enormous benefit of the American economy. We do not favor taxing the Internet immediately but neither should we ever use the word “never” in a technology policy. The world simply moves too quickly. Visible on the horizon are problems such as the development of Internet services toward regional monopolies. It is unwise to peremptorily declare a “correct” economic model for such unknown future business realities.

Q: What other issues should the two candidates be addressing in terms of Internet policy and innovation?

Abelson/Lewis: Over the past decade, executive decisions have challenged the limits of First and Fourth Amendment protections. Measures to protect children on the Internet must be justified by data about the prevalence of actual harm to children, and balanced against the government’s obligation not to limit the free flow of ideas and words among adults and children. Similarly, the effectiveness of data mining and dragnet surveillance techniques exploited in the war on terror must be assessed and balanced against the right of Americans not to have their communications and stored data searched without probable cause. Those issues will require extensive collaboration with Congress. In contrast, something the new administration can do largely on its own is to use the Internet to make government more transparent and accountable, by providing more openness and consistent access to government data and creating more responsive mechanisms for citizen input.

Far from perfect: Stewart charts progress of U.S. voting security

Charles Stewart III, the Kenan Sahin (1963) Distinguished Professor of Political Science and head of MIT’s Department of Political Science, examines issues of voting security.

Question: In light of concerns about e-voting systems in 2000 and 2004, how secure are voting systems for 2008?

Stewart: The more experience we have with voting systems, the more we realize there’s a real distinction between security and reliability. There have been some well-publicized cases where teams of experts have exposed security vulnerabilities with electronic systems, and there have been other cases where researchers have “hacked” into systems. But there still isn’t any hard evidence of major security problems emerging in actual elections. However, there continue to be an unsevering number of cases where systems are shown to be unreliable. For instance, Premier Election Solutions (formerly Diebold) recently reported that a bug in the software that accepts and counts election results from individual voting machines has a flaw that can result in some ballots being dropped from the system before they are counted. It’s a stretch to call this a security problem, but it’s not a stretch to call it a reliability problem.

The reliability problems aren’t just with electronic voting machines. The Premier Election Solutions example applies to optical scan ballots as well as to electronic machines.

I still am confident that votes are counted better now than they were in 2000, but we still have a long way to go before anything close to perfection is achieved.

Q: Have any significant gains been made in terms of security of voting machine or paper ballots?

Stewart: I think that most computer scientists would say that no real gains have been made with the electronic systems because they are inherently insecure and unreliable.

Even the addition of “paper backups” to electronic machines hasn’t been a panacea. (Again, the Premier example I mentioned before is a good example — it is possible to compare the paper reports generated by the voting machines with the electronic tape that remain after the download. However, almost no one has been doing this comparison — and these are the professional election administrators.)

The physical security of paper ballots (and of voting machines) is probably better because states are now more aware of the need to establish a “chain of custody” of voting machines and ballots. For instance, in a lot of states, officials used to allow poll workers to take the machines home the night before the election. These so-called “sleepovers” for the voting machines made it easier for the poll workers to get the precincts opened for voting on Election Day, but raised questions about opportunities for tampering. Sleepovers are going the way of the dodo.

So, again, I think things are better now than in 2000. However, we are much more aware of how informally elections are run in the United States, which continues to provide Election Day horror stories.

Q: What innovations do you see coming in terms of voting systems?

Stewart: I continue to be amazed that the major voting machine companies don’t adopt as open-source machine software. Computer experts will tell you that open-source election software won’t guarantee security, but it will make it much easier for those who would give away their voting systems to fix any software errors that come to light.

One of the barriers to the development of a robust electronic voting machine market is the lingering distrust of elements of the public in the quality of the software.

Q: Should the nation adopt a system of voting identification cards to protect the election process?

Stewart: It’s pretty clear that voting identification cards will end high levels of fraudulent voting, and Democrats generally support them. However, Republicans believe that more stringent voting identification will end high levels of fraudulent voting, and Democrats would like to make those ID laws as minor as possible if they will work. One of the barriers to the development of a robust electronic voting machine market is the lingering distrust of elements of the public in the quality of the software.

Q: What innovations do you see coming in terms of voting systems?

Stewart: It depends on what the problem is, but in general, you should talk to the poll worker who is in charge of the precinct voting right away. Don’t wait until you’ve checked out, because there’s no way to undo a vote once you’ve checked out of the precinct. If there are registration issues, voters may also insist that they be given a provisional ballot, allowing them to resolve the registration problem the next day at the local election department (or town clerk) office. I myself, have observed one precinct in Cambridge where people who were pasted away from voting when there was a minor registration question, rather than even being told they could cast a provisional ballot (to be clear: these were people who were registered, or thought they should be on the registration list, but there was some confusion about the registration). When poll workers say there is no way to clear up registration problems on Election Day, they aren’t following the rules.