Schoolwide News

Seeing a New Way

By Amy MacMillan

SDM ’09 student Sunish Gupta can’t get away from engineering. He has an MS in electrical engineering and a resume chock-full of process engineering experience. Now he’s here at MIT to earn his second master’s in engineering and business through the System Design and Management (SDM) program, which is sponsored jointly by the MIT Sloan School of Management and the School of Engineering.

Sunish is like many of the accomplished SDM students who come to MIT every year – with one exception – he is blind. He lost his eyesight nearly 10 years ago due to Retinitis Pigmentosa (RP), a progressive eye disease that causes peripheral and central loss of vision. Sunish, 40, who was born sighted, experienced the onset of RP back in the mid-1990s when he developed night blindness. He was diagnosed with the incurable disease in 2001. Today, Sunish can see some light and shadows, but cannot discern details such as facial features or text. He now depends entirely on speech technology for reading and for using a computer.

According to Sunish, RP is not the most common cause of blindness, and there are approximately 200,000 adults living with the condition in the United States. Today, Sunish gets around with a white cane and lives an independent lifestyle, but he struggled for words as he explained confronting his loss of sight as a young man. “It was…very hard to overcome,” he said. “It’s definitely challenging, but, as I started talking to more and more blind people to see how they lived…I tried to find positive influences in my life,” he said.

Because Sunish previously had 20/20 vision, he could identify with both the sighted and the blind. “I could see both sides of the equation…because we depend on vision so much; it’s hard to comprehend what we would do without it. But, there is good news in that there are blind people who are extremely adaptable. It’s all up to you…there’s a learning curve of course. I could sit home all day and keep crying…or I can go out and learn something new,” he said.

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We welcome story ideas, photos, suggestions, and comments from students, faculty, and staff.

Please send items to: Sarah Foote, Editor, news@sloan.mit.edu.

Deadline: 12 p.m. Thursday for publication the following week.

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Sunish looked to mentors such as Erik Weihenmayer, the only blind person to reach the top of Mt. Everest. Sunish met him through the National Federation of the Blind (NFB) and assisted with premiering a video about Weihenmayer’s historic feat. “If you set your mind to it, anything is possible,” Sunish said.

At the time of his diagnosis, Sunish was working as a Senior Product Marketing Manager for Amkor Technology in Boise, Idaho. For most of his career, he was a process engineer at companies such as Texas Instruments. Following his diagnosis, Sunish assumed he had to change jobs. “Normally, a process engineer goes to the fabrication plant, does research, and then makes presentations. It’s very visual, of course,” he said.

As his blindness progressed, he volunteered with NFB to help develop technology for the disabled and blind. “That opened up a lot of avenues for me. Someone else can become a process engineer. I thought that I could better fill a need by developing technology for the disabled and blind,” he said. He quickly noticed that there was a big gap in the technology that was available for blind and disabled people. At the NFB’s invitation, he became a part of their research and development committee in 2003.

Ultimately, he took an assignment as Director of Access Technology and Marketing at NFB in 2004 where he assisted with commercializing the world’s first portable reader for the blind, the knfbReader Classic, in conjunction with Ray Kurzweil, SB ’70. Since the 1970s, Kurzweil has been working on computer programs that recognize printed letters (known as optical character recognition or OCR) that could assist the blind. Kurzweil’s early reading machine read documents out loud for the blind.

By the time Sunish joined the NFB, Kurzweil’s team was in the process of finalizing OCR software on a laptop connected with a camera. The portable device could photograph text and translate it into voice. The knfbReader Classic was finalized by 2005, and a new company, knfb Reading Technology, Inc. (www.knfbreader.com), a joint venture between the NFB and Kurzweil Technologies, was spun off. The knfbReader Classic is actually two pieces of technology—a Canon digital camera and a personal data assistant (PDA) clasped together. The user snaps a picture of any kind of text in everyday print—from a menu to an ATM receipt to a piece of mail—and the character recognition software will read the text back, either out loud or through headphones. The product instantly enhanced the lives of blind people by making such a product portable. According to Sunish, approximately 3,000 of the units, which retailed for $3,500 apiece, have been sold since 2007.

Recently, knfb Reading Technology, Inc. introduced the knfbReader Mobile, which is actually a single device—a Nokia N82 cell phone which performs the same functions as the Classic model. It has replaced the knfbReader Classic. “We all carry cell phones with us anyway, and we were just waiting for the technology to catch up so that the processing power could handle it,” Sunish said. The device features all of the functions of a cell phone, and can also, with a 5-megapixel autofocus, high-intensity camera, read...
and store most printed documents including all U.S. currency, and can adjust the reading speed based on a user’s personal preferences. “You can take a photo [at any distance] of a document, press one button, and transfer the picture and with the character recognition software, it will start speaking within 30 seconds,” Sunish said. It can also transfer text files to and from computers or Braille note takers.

Sunish and his wife, Jennifer Bose, who was born blind, use the mobile device for many of their daily tasks. Jennifer props the Reader on a stand and uses it to read and sort the couple’s mail. Or one of them will use it in the kitchen to read recipes or nutrition information on cereal boxes. “Before we had to take an item over to the scanner at the computer, and scan it in,” he explained.

Sunish said he was attracted to the SDM program, because as he was working on the knfbReader technology, he noticed that although the new technology was revolutionary for blind people, it’s a limited market. “You don’t need to make millions of them,” he said. “There’s not a big enough market, so the volume becomes a key driver.”

Furthermore he noticed that many of today’s consumer electronics and appliances now feature flat-screen control panels. The flat screen has made its way to refrigerator, microwave, and oven controls, primarily because it is easier to clean. “Those big knobs are gone. Everything is touch-screen based now. That poses a big issue not just for blind people, but for seniors and other disability groups,” Sunish noted.

To alleviate this issue, Sunish plans to start a business which will join product manufacturers and disabled consumers together to consider their mutual needs. He’s already set up an organization called Easy Alliance which will bring these groups to the table to find common solutions. Perhaps some appliances can continue to feature old-school knobs and controls, or perhaps Sunish can provide some technology that can interface with the manufacturers’ latest advancements. “I’m just one person of the population,” he pointed out. “There’s no way a manufacturer will agree to customize a product just for me. But if I band together with other disability and senior groups…it will account for 15 percent of the market.”

He was interested in SDM because the program offers an interdisciplinary experience and broadens the scope of influence, while keeping tab on the technical and managerial details. In addition, when considering systems design, it doesn’t matter what field of engineering you are from. “I am not only designing a thing…I am designing a system,” he explained. Holistic thinking is brought into the design because it’s a whole process, he said.
So far, Sunish is impressed with the interdisciplinary SDM program. He has chosen to attend the 24-month, on-campus option. “I’m learning a lot of great things in every class. I have to connect all of these pieces together and see how I can take advantage of it, and apply these things in my future work…No matter how hard it is, I just can’t stay away from engineering,” he said.

He’s not sure of his exact plans once he earns his MIT degree. He may continue his Easy Alliance pursuit or he may go to work for a company where he can design appliances and electronics. Sunish plans to assist other groups in addition to the blind. “I don’t want people to have the misconception that just because I’m blind, I’m going to focus on the blind. I want to broaden the work beyond blindness. There are similar design approaches which can be applied for other disabilities also,” he said.

Sunish said blindness does not prevent comprehension and this is a common misperception that he often encounters. “People think, generally, that if you are blind, it’s hard to visualize or conceptualize something. Just because I can’t see the PowerPoint slide doesn’t mean I don’t get it.” Fortunately, most of his MIT professors will send him presentations before lectures and paid and volunteer readers will sometimes help him out. Sunish also relies on JAWS for Windows Screen Reading software, which reads his computers applications out loud for him. It’s how he’s able to browse the web, check e-mail, and read other documents. “By using special commands on the keyboard, I can navigate to a web page sometimes even much faster than a sighted person,” he said. Typically he uses headphones so he won’t disturb those around him.

The MIT Office of Disabilities has provided him with some invaluable assistance, Sunish said. Kathleen Monagle, Assistant Dean, Student Disability Services, said her office works closely with the Adaptive Technology Information Center (ATIC) at MIT to create access for qualified students with disabilities. “We work individually with each student to determine his or her needs…sometimes they involve technology,” said Kathleen.

One of the biggest challenges is sometimes just getting around campus, particularly with all of the ongoing construction. Fortunately MIT classroom entrances all have Braille signs, and Sunish said the MIT community has been helpful and friendly.

In his free time, Sunish likes to travel, spend time with his 10-year-old daughter, Reeya, and take walks with his wife, who is a research analyst for the Institute for Community Inclusion at UMASS Boston. She primarily relies on a guide dog, a black Labrador Retriever named “Willow,” to get around, and Sunish said he has considered getting a dog for himself once he graduates from MIT.

Sunish encouraged everyone to pursue their dreams, as he has done. “One should go out and push the envelope – just a tiny bit more, every day.”

**MIT Sloan Professor Honored**

Lotte Bailyn, Professor of Management, has been named the 2009 recipient of MIT’s Gordon Y. Billard Award. This award is presented annually for “special service of outstanding merit performed for the Institute,” with a fund established by Gordon Y. Billard, ’24.
MIT Sloan Excellence in Teaching Awards

Don’t forget to nominate

Please acknowledge the extraordinary efforts of a faculty and/or teaching assistant who has made a positive difference for you this year by nominating them for an Excellence in Teaching Award. Last year we had nearly 200 nominations – our goal is to exceed that this year!

If at any point this year (S’08, F’08, IAP’09, S’09), a faculty member or TA has exhibited exceptional performance and made outstanding contributions in the classroom, please take a moment to recognize their commitment to academic excellence by submitting a nomination in their honor. Consideration is given to both the quality (the strength of what you have to say) and the quantity of the nominations. You may nominate as many faculty members and/or TAs you’d like. All MIT Sloan students are welcome to submit nominations.

To Nominate: Use the online form at: mitsloan.mit.edu/teachingawards/. The last day to submit a nomination is Friday, April 17.

The Awards ceremony will be held on Friday, May 1, from 12:00 - 1:00 p.m., in Diebold Lounge (E51). Questions may be directed to Tara Walor, twalor@mit.edu, MIT Sloan Educational Services, E52-101, 617-253-1510.

New Graduate Student Council Members Elected

The 2009-2010 GSC Officers, were elected recently and include:

Alex Hamilton Chan, President
Kevin McComber, Vice-President
Chuck Gammal, Secretary, MBA ’10
Nan Gu, Treasurer

2009 Class Gift Campaign: Students Today, Sloanies Forever…

It is hard to believe that in less than two months the Class of 2009 will be alumni of MIT Sloan. The last year and a half we have spent together at the School has been full of amazing experiences, both in and out of the classroom. Our project based classes, treks to all corners of the world, and student-organized, impactful annual events show the passion we have for this MIT Sloan community and the greater world. Being at Sloan drives us to bring about change. Even as we go through tough times, our bond as members of the MIT Sloan community strengthens. Inside the classroom we support each other, discussing and learning from the current crises, while from outside the classroom Sloan alumni return to campus, offering advice to current students.

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The Class of 2009 is in the process of leaving its own legacy at MIT Sloan, a legacy that we hope reinforces this community as a place for positive change. One tangible and notable way we can do this is through our Class Gift. Our Class Gift is an opportunity for us to immediately give back to the MIT Sloan community and in turn support all the things that make this school great, like our G-Lab projects, Dean’s Innovative Leader Series, annual Galas, Energy Conferences, and more. The Class Gift Campaign is an important tradition which allows us as the Class of 2009 to make a positive impact on future generations of MIT Sloan students.

The Class of 2009 Class Gift Committee chose the Annual Fund for this year’s gift because it is the most extensive way to contribute to the school. It provides essential unrestricted support that can be directed to the most pressing needs at any given moment, including faculty research, alumni outreach, and important initiatives of the Dean. Furthermore, students can designate their gift to certain areas within the Annual Fund to assure that future classes will have the same outstanding experiences that they have come to cherish. Last year, 76 percent of the Class of 2008 gave a total of $222,602 to benefit future MIT Sloan classes. This year we know that the Class of 2009 can come together to show how much our class cares about the future of the MIT Sloan community!

On April 15 we are kicking off the 2009 Class Gift Campaign. Join us for a kick-off event in the E51-Tang Lobby from 9:30 - 10:30 a.m., with food, refreshments, and an opportunity to win prizes. As graduates in these uncertain economic times we understand your financial strains and would like to stress the importance of your participation, and not the size of your gift. Every gift to MIT Sloan counts. The Class of 2009’s support shows foundations, corporations, prospective students and our extended community that Sloan alumni believe in the school.

Come celebrate being a Sloanie on Wednesday April 15, from 9:30 - 10:30 a.m. in E51-Tang Lobby.

The Class of 2009 Class Gift Committee:
Faisal Alibrahim, Missy Brost, James Carmody, Jimmy Chen, Angelina Clarke, Maria Downing, David Gold, Kevin Knight, Ryan Lester, Taariq Lewis, Eglae Recchia, Nita Saetie, Debbie Schapira, Indy Sen, Mitu Singh, Rob Ware, Hajime Watanabe, Damian Wisniewski, Patrick Zeitouni.

U.S. Foreign Policy after Bush: Can Bipartisanship and Liberal Internationalism be Revived?

Speaker: Charles Kupchan, Georgetown University

This talk will be held Wednesday, April 15, from 12:00-1:30 p.m., in E38-615, and is open to the general public. For more information contact 617-253-7529 or e-mail: valeriet@mit.edu.

Quote of the Week

“I feel sorry for the person who can’t get genuinely excited about his work. Not only will he never be satisfied, but he will never achieve anything worthwhile.”
—Walter Chrysler
**MOVIES**

**NOW PLAYING ON CAMPUS...**

LSC Classics Presents:

**Raging Bull (1980)**

With *Raging Bull*, Martin Scorsese’s personal approach to filmmaking is taken to a whole new level. Shooting in a crisp black and white, Scorsese tells the story of middleweight boxer Jake La Motta, played with incredible intensity by Oscar winner Robert De Niro. As La Motta rises through the ranks to earn his first shot at the middleweight crown, he falls in love with Vickie (Cathy Moriarty), a gorgeous girl from his Bronx neighborhood. Jake’s inability to express his feelings pours out in the ring and eventually takes over his life, and in his dealings with his brother, Joey (a brilliant Joe Pesci). Irrational jealousy over Vickie, as well as an insatiable appetite, sends him into a downward spiral that costs him his title, his wife, and his relationship with Joey. As the out-of-control fighter, De Niro delivers one of the screen’s most unforgettable performances. Pesci is just as intense as Joey, who finally realizes that he is unable to tame his animalistic brother. Simply put, *Raging Bull* is one of American cinema’s masterworks.

Playing on April 17, at 7:00 and 10:00 p.m. in 26-100 and again on April 19, at 7:00 p.m. in 26-100.

*From the Lecture Series Committee website. All movies are just $4.*

**Mystery Cafe Presents The Mobfather**

The group of people who started Mystery Café in Boston in 1986 were the pioneers of the style of performance now commonly referred to as “interactive dinner theater.”

This event takes place Saturday, April 25, 7:30 p.m., at Ricardo’s Ristorante, Boston. For more information visit: [http://mysterycafe.com/show2009.php?s=mobfather](http://mysterycafe.com/show2009.php?s=mobfather).

**Zero Waste**

Everyone needs to eat, but the Food Initiative group from Sustainability@MIT, the Institute’s largest student-run group focused on sustainability issues, wants to ensure there are sustainable options on campus, said Todd Schenk, President of the Food Initiative, and a master’s student in the Department of Urban Studies and Planning.

Todd said there are about 80 students – including some MIT Sloan students – involved in the Food Initiative, which formed about a year ago. The Initiative aims to promote locally grown and organic foods, more diverse food options across campus, and awareness among students, faculty, and staff of sustainable food.

The group is now dispersing information on Zero Waste Food Sourcing and Service to administrative assistants and others who order food for events here on campus. The guide offers names of some local caterers who offer organic options, as well as suggested questions to ask caterers in order to assess their sustainability. Questions cover topics such as vegetarian options and the possibility of ordering from seasonal menus.

To see a copy of the Zero Waste guide visit: [http://sustainability.mit.edu/food/zero-waste-mit-events-planning-guide](http://sustainability.mit.edu/food/zero-waste-mit-events-planning-guide) to read or download, or e-mail Todd at tschenk@mit.edu.
2009 Korean Study Tour
Photos courtesy of Dawn Peters, SAO, and Adrian Garcia, MBA ’10

At the Blue House, Office of the President of the Republic of Korea, l-r: Adrian Garcia, Jun Mo Park, Henry Ford, and Brian Howard, all MBA ’10

Taking part in a cooking class at the Korean Food Institute, l-r: Brian Howard, MBA ’10, Anne Reilly, MBA ’10, Henry Ford, MBA ’10, Miguel Valencia Pires, MBA ’09, Tessa Strong, MBA ’10, and Seayong Lee, MBA ’09.

Professor Roberta Pittore dressed in a Hanbok, or traditional Korean dress.