



# UNLOCKING KNOWLEDGE, EMPOWERING MINDS

A MILESTONE CELEBRATION

**MIT****OPEN****COURSEWARE**  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

## OpenCourseWare World Impact

**KUNLE ADEJUMO** was introduced to MIT



OpenCourseWare through a copy of the site on CD-ROM. As an engineering student at Ahmadu Bello University in Zaria, Nigeria, he has become an advocate of OCW with his fellow students and professors. "Last semester, I had a course in metallurgical engineering," offers Adejumo. "For one of the lectures, having to do with ion making, I didn't have notes, and I couldn't find the information I needed, so I went to OCW. I was able to download a course outline on this, and also some review questions. I actually took these to the university and gave them to the lecturer to answer. He was able to answer these questions, and helped me gain a deeper understanding of the material." To spread the word, Adejumo hopes eventually to work with a local radio station to publicize the site and broadcast OCW course materials to his community. "The station is interested in broadcasting educational programs, and OCW would be the perfect fit," he said. "In the process, more students will learn about the site and students need to know that these things are available."

**As a math teacher and student in the graduate school, the materials in the website have truly helped me further my knowledge in mathematics. It also helped me focus on what students in high school should learn in preparation for the university.**

**– Educator,  
Philippines**



**The lectures are actually fun watching. (I've even seen most of them twice!) These lectures gave me a deeper understanding of the subject, and I'm pretty sure that if it wasn't for these OCW lectures, I would not have received my 'A' in my local algorithms course.**

— Student,  
Norway

**MARGARET ADAMS**, a doctoral student studying mathematics curriculum and instruction at the University of North Carolina at Charlotte, hopes eventually to use her degree to help public school systems modify their math curricula to better prepare low-performing students for educational opportunities. As a student of education, Adams is a staunch believer in the potential of the Internet to help students of all levels and backgrounds achieve educational success outside of the traditional classroom. Adams' use of Gilbert Strang's "Course 18.06—Linear Algebra" on MIT's OpenCourseWare has helped her develop a better grasp of the subject than classroom work alone. "I'm not really a math major, but rather somebody who wants to get a background in math," she explains. "If that Web site were not there I think a lot of people would give up in their current courses—and maybe even give up in the whole field of mathematics—just like typical middle and high school students do. But Gil Strang makes it so that people can start to learn, and enjoy math, and be successful overall. He gives people hope."

**These resources contain the most informative set of course materials made available to the public. I would actually go as far as saying that this ranks among the greatest higher education initiatives in history.**

— Educator,  
United Kingdom

**ROBERT CROGHAN** is an entrepreneur in St.



Lucia. Far below the rainforest and lush valleys of fruit trees on the island of St. Lucia lays a dormant volcano that acts as a natural heat vent for the island.

Croghan has spent the past several years looking for a way to harness this natural resource to create an alternative energy source for the island. "I'm working on a project to develop geothermal energy in the Eastern Caribbean," Croghan explains, "and install a high-voltage grid through an undersea cable that would connect several of the islands." In his explorations of the topic, Croghan has made use of the research and resources available on MIT's OpenCourseWare. But he also sees the potential of OCW to improve another part of St. Lucia's infrastructure—its education system. "When I saw OpenCourseWare, it went right to the very core of what I believe," he explains. "If we hoard information, we can't have progress. And if that happens, we miss all sorts of incredible developments and opportunities."

**It is absolutely amazing to have this kind of materials available online. More and more universities are getting commercialized. Knowledge becomes expensive while time is scarce. I am glad some universities realize the importance of free information flow for the progress.**

— Self learner,  
Belarus

## A Milestone Celebration

### WONG AUDITORIUM, TANG CENTER

1:30PM–2:00PM

#### **CHECK-IN AND REGISTRATION**

2:00PM–2:10PM

#### **WELCOME AND INTRODUCTION STEVEN LERMAN**

Dean for Graduate Students, MIT

2:10PM–2:30PM

#### **REFLECTIONS ON MIT OPENCOURSEWARE SUSAN HOCKFIELD**

President, MIT

2:30PM–3:15PM

#### **KEYNOTE ADDRESS THOMAS FRIEDMAN**

Columnist, *The New York Times*

3:15PM–3:30PM

#### **BREAK**

3:30PM–4:45PM

#### **PANEL DISCUSSION: FUTURE OF OCW AND EDUCATION**

**HAROLD ABELSON** (Moderator)  
Professor, Electrical Engineering  
and Computer Science, MIT

#### **CHARLES VEST**

President, National  
Academy of Engineering;  
President Emeritus, MIT

#### **JOHN SEELY BROWN**

Former Chief Scientist,  
Xerox Corporation

#### **SAM PITRODA**

Chairman, National Knowledge  
Commission, Government of India

4:45PM–5:15PM

#### **NEW OCW INITIATIVE ANNOUNCEMENT SUSAN HOCKFIELD**

President, MIT

5:15PM–5:30PM

#### **ACKNOWLEDGMENTS SUSAN HOCKFIELD**

President, MIT

### WONG AUDITORIUM LOBBY

5:30PM–6:30PM

#### **RECEPTION**

MIT OpenCourseWare would not have been possible without the support of the **William and Flora Hewlett Foundation**, the **Andrew W. Mellon Foundation**, and the **Ab Initio Corporation**.

MILESTONE CELEBRATION **A MILESTONE CELEBRATION**

## Speakers

**HAROLD (HAL) ABELSON** is Class of 1922



Professor of Computer Science and Engineering at MIT and a fellow of the IEEE. He has been co-chair of the MIT Council on Educational Technology since its inception in 1999 and has helped drive the formulation of the MIT strategic framework from which OpenCourseWare and other MIT institutional educational technology have emerged. He played a key role in the conception of MIT DSpace and in initiating the collaboration between MIT and Hewlett-Packard that launched DSpace, and from 1999–2007, co-directed the MIT-Microsoft iCampus Research Alliance in Educational Technology.

Beyond MIT, he is a founding director of Creative Commons, the Free Software Foundation, and Public Knowledge, and a director of the Center for Democracy and Technology, four organizations that promote openness and sharing on the Internet and in society at large. In 1992, Dr. Abelson was designated as one of MIT's six inaugural MacVicar Faculty Fellows, in recognition of his significant and sustained contributions to teaching and undergraduate education, he was recipient in 1992 of the Bose Award (MIT's School of Engineering teaching award). Dr. Abelson is also the winner of the 1995 Taylor L. Booth Education Award given by IEEE Computer Society, cited for his continued contributions to the pedagogy and teaching of introductory computer science.

OCW gives us confidence that we're in close contact with the international body of knowledge, and international standards. It assures the students that they are receiving high-quality instruction. What it really means to them is that we are following a course and a methodology which is of the highest caliber.

— Educator,  
South Africa



**JOHN SEELY BROWN** is currently a visiting scholar at the Annenberg Center at USC. He was the chief scientist of Xerox Corporation until April 2002 and also the director of the Xerox Palo Alto Research Center (PARC) until June 2000—a position he held for twelve years. While head of PARC, Dr. Seely Brown expanded the role of corporate research to include such topics as organizational learning, complex adaptive systems, micro electrical mechanical system (MEMS) and nanotechnology.



His personal research interests include digital culture and rich media (both of which he pursues at USC), ubiquitous computing, web service architectures and organizational and individual learning. The recipient of honorary PhDs from Brown University and the London Business School, Dr. Seely Brown is the author of many influential publications on learning, including *Learning in the Digital Age* (2002) and *The Social Life of Learning: How can Continuing Education be Reconfigured in the Future* (2002).

**THOMAS L. FRIEDMAN** won the 2002 Pulitzer Prize for commentary, his third Pulitzer for *The New York Times*. He became the paper's foreign-affairs columnist in 1995. Previously, he served as chief economic correspondent in the Washington bureau and before that he was the chief White House correspondent. In 2005, Mr. Friedman was elected as a member of the Pulitzer Prize Board.



Mr. Friedman joined *The Times* in 1981 and was appointed Beirut bureau chief in 1982. In 1984, Mr. Friedman was transferred from Beirut to Jerusalem, where he served as Israel bureau chief until 1988. Mr. Friedman was awarded the 1983 Pulitzer Prize for international reporting (from Lebanon) and the 1988 Pulitzer Prize for international reporting (from Israel). Mr. Friedman's latest book, *The World is Flat: A Brief History of the 21st Century*, was released in April 2005 and won the inaugural Goldman Sachs/Financial Times Business Book of the Year award. In 2004, he was awarded the Overseas Press Club Award for lifetime achievement and the honorary title, Order of the British Empire (OBE), by Queen Elizabeth II.

**SUSAN HOCKFIELD** has served as the sixteenth president of the Massachusetts Institute of Technology since December of 2004. She advocates for the vital role that science, technology, and the research university play in the world and promotes the conviction that MIT can best advance its historic mission of teaching, research, and service by providing robust and sustained support for the ideas and energies of its faculty and students.



A noted neuroscientist whose research has focused on the development of the brain, Dr. Hockfield is the first life scientist to lead MIT. She holds a faculty appointment as professor of neuroscience in the Institute's Department of Brain and Cognitive Sciences.

To keep MIT at the forefront of innovation, Dr. Hockfield encourages collaborative work among its schools, departments, and interdisciplinary laboratories and centers. MIT's strengths in engineering and science uniquely position it to pioneer newly evolving interdisciplinary areas and and translate them into practice. By combining these strengths with its tradition of excellence in architecture and planning, in management, and in the humanities, arts and social sciences, MIT will continue to develop powerful solutions to the greatest challenges of our era.

**This is a pioneering project for the rest of the world. It is unquestionable that these online course materials are of paramount support to anyone, anywhere and particularly for Africa where there is still a significant lack of higher education materials.**

— Student,  
Ethiopia



**STEVEN R. LERMAN** received his BS in Civil Engineering from MIT in 1972 and his SM and PhD in Transportation Systems from MIT in 1973 and 1975 respectively. He joined the faculty in 1975 and now holds the Class of 1922 Professorship in Civil and Environmental Engineering.



He is currently the dean for Graduate Students at MIT. He also directs the Center for Educational Computing Initiatives, an interdepartmental research center devoted to studying the application of computational and communication technologies in education. Dr. Lerman was previously the chair of the MIT faculty from 2000–2002 and associate chair/chair elect for the two preceding years. He served as Chair of the Faculty again in 2006–2007.

From 1983 to 1988, Dr. Lerman was the first director of MIT's Project Athena. This project developed a campus-wide distributed system of advanced computer workstations that still serves as the basis for campus computing at MIT. He serves as the chair of the Faculty Advisory Committee of the MIT OpenCourseWare initiative and chaired the OCW Interim Management Board during that program's startup phase. He and his wife Lori have been the housemasters for The Warehouse (a.k.a. NW30), one of MIT's graduate residences since the building opened in 2000.

**SATYANARAYAN GANGARAM PITRODA**, better known as Dr. Sam Pitroda, born in Titlagarh, Orissa, is an inventor, entrepreneur and policymaker. Currently chairman of India's National Knowledge Commission, he is also widely considered to have been responsible for India's communications revolution. He is the Chairman and CEO of World-Tel Limited, an International Telecommunication Union (ITU) initiative. He holds many key technology patents, has been involved in several startups, and lectures extensively around the world on the implications of communications and information technology.



Dr. Pitroda is also the founder and CEO of C-SAM, Inc, and serves as a director on the board of Jet Airways. C-SAM has developed an m-Commerce application by the name OneWallet. The company has offices in London, Tokyo, and offshore development centres in India, in Mumbai and Vadodara. He has served as an advisor to the United Nations.

**CHARLES M. VEST** is president of the National Academy of Engineering and president emeritus of the Massachusetts Institute of Technology. Dr. Vest earned a BS in Mechanical Engineering from West Virginia University in 1963, and MSE and PhD degrees in Mechanical Engineering from the University of Michigan in 1964 and 1967 respectively.



In 1990, he became president of the Massachusetts Institute of Technology (MIT) and served in that position until December 2004. As president of MIT, he was active in science, technology, and innovation policy; building partnerships among academia, government and industry; and championing the importance of open, global scientific communication, travel, and sharing of intellectual resources. During his tenure, MIT launched its OpenCourseWare (OCW) initiative; co-founded the Alliance for Global Sustainability; enhanced the racial, gender, and cultural diversity of its students and faculty; established major new institutes in neuroscience and genomic medicine; and redeveloped much of its campus.

In July 2007, he was elected to serve as president of the U.S. National Academy of Engineering (NAE) for six years. He has served on various federal committees and commissions, including the Presidents Council of Advisors on Science and Technology (PCAST) during the Clinton and Bush administrations, the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction, the Secretary of Education's Commission on the Future of Higher Education, and the Secretary of State's Advisory Committee on Transformational Diplomacy. He is the author of one book on holographic interferometry, and two books on higher education. He has received honorary doctoral degrees from ten universities, and was awarded the 2006 National Medal of Technology by President Bush.

**I want to say thanks for this extraordinary initiative. It is opening a window of knowledge for so many who are limited by economic or other reasons. It's a truly way to spread freedom to humankind.**

**— Self learner,  
Venezuela**



# Acknowledgements

## Faculty and Other Teaching Staff

*OCW represents the generosity of an entire teaching community. Over 90% of MIT's tenured and tenure track faculty, and hundreds of other teaching staff, have contributed teaching materials to the OCW site.*

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