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Marvin Minsky

Photo: Marie Cosindas

Marvin Minsky, “father of artificial intelligence,” dies at 88

Professor emeritus was a co-founder of CSAIL and a founding member of the Media Lab.

MIT Media Lab
January 25, 2016

▼ Press Inquiries



PRESS MENTIONS

Marvin Minsky, a mathematician, computer scientist, and pioneer in the field of artificial intelligence, died at Boston’s Brigham and Women’s Hospital on Sunday, Jan. 24, of a cerebral hemorrhage. He was 88.

Minsky, a professor emeritus at the MIT Media Lab, was a pioneering thinker and the foremost expert on the theory of artificial intelligence. His 1985 book “The Society of Mind” is considered a seminal exploration of intellectual structure and function, advancing understanding of the diversity of mechanisms interacting in intelligence and thought. Minsky’s last book, “The Emotion Machine: Commonsense Thinking, Artificial

Popular Science's Dave Gershgorn writes about Prof. Marvin Minsky's contribution to artificial intelligence. Media Lab research scientist Joscha Bach described Minsky as a “great thinker not only in computer science and mathematics, but in how we understand the mind.”

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Intelligence, and the Future of the Human Mind,” was published in 2006.

Minsky viewed the brain as a machine whose functioning can be studied and replicated in a computer — which would teach us, in turn, to better understand the human brain and higher-level mental functions: How might we endow machines with common sense — the knowledge humans acquire every day through experience? How, for example, do we teach a sophisticated computer that to drag an object on a string, you need to pull, not push — a concept easily mastered by a two-year-old child?

"Very few people produce seminal work in more than one field; Marvin Minsky was that caliber of genius," MIT President L. Rafael Reif says. "Subtract his contributions from MIT alone and the intellectual landscape would be unrecognizable: without CSAIL, without the Media Lab, without the study of artificial intelligence and without generations of his extraordinarily creative students and protégés. His curiosity was ravenous. His creativity was beyond measuring. We can only be grateful that he made his intellectual home at MIT."

A native New Yorker, Minsky was born on Aug. 9, 1927, and entered Harvard University after returning from service in the U.S. Navy during World War II. After graduating from Harvard with honors in 1950, he attended Princeton University, receiving his PhD in mathematics in 1954. In 1951, his first year at Princeton, he built the first neural network simulator.

Minsky joined the faculty of MIT's Department of Electrical Engineering and Computer Science in 1958, and co-founded the Artificial Intelligence Laboratory (now the **Computer Science and Artificial Intelligence Laboratory**) the following year. At the AI Lab, he aimed to explore how to endow machines with human-like perception and intelligence. He created robotic hands that can manipulate objects, developed new programming frameworks, and wrote extensively about philosophical issues in artificial intelligence.

"Marvin Minsky helped create the vision of artificial intelligence as we know it today," says CSAIL Director Daniela Rus, the Andrew and Erna Viterbi Professor in MIT's Department of Electrical Engineering and

Prof. Marvin Minsky, who helped found MIT's Artificial Intelligence Lab, passed away at 88. "Marvin was a person who loved ideas and he cherished the people who came up with ideas," says Prof. Michael Hawley on *WBUR's All Things Considered*.

90.9wbur

Washington Post reporter Joel Achenbach writes about the life and work of Prof. emeritus Marvin Minsky, who died on Sunday. Achenbach writes that Minsky's colleagues knew him "as a man who was strikingly clever in conversation, with an ability to anticipate what others are thinking -- and then conjure up an even more intriguing variation on those thoughts."

The Washington Post

In an article for *The Boston Globe*, Bryan Marquard writes about Prof. emeritus Marvin Minsky, co-founder of the former AI Lab (now CSAIL), a founding member of the Media Lab, and a pioneer in the field of AI, who passed away on Sunday.

The Boston Globe

Prof. emeritus Marvin Minsky, one of the founders of the field of artificial intelligence, died Sunday at age 88, reports Glenn Rifkin for *The New York Times*. Rifkin writes that Minsky "combined a scientist's thirst for knowledge with a philosopher's quest for truth as a pioneering explorer of artificial intelligence."

Computer Science. “The challenges he defined are still driving our quest for intelligent machines and inspiring researchers to push the boundaries in computer science.”

Minsky was convinced that humans will one day develop machines that rival our own intelligence. But frustrated by a shortage of both researchers and funding in recent years, he cautioned, “How long this takes will depend on how many people we have working on the right problems.”

In 1985, Minsky became a founding member of the MIT Media Lab, where he was named the Toshiba Professor of Media Arts and Sciences, and where he continued to teach and mentor until recently.

Professor Nicholas Negroponte, co-founder and chairman emeritus of the Media Lab, says: “Marvin talked in riddles that made perfect sense, were always profound and often so funny that you would find yourself laughing days later. His genius was so self-evident that it defined ‘awesome.’ The Lab bathed in his reflected light.”

In addition to his renown in artificial intelligence, Minsky was a gifted pianist — one of only a handful of people in the world who could improvise fugues, the polyphonic counterpoint that distinguish Western classical music. His influential 1981 paper “Music, Mind and Meaning” illuminated the connections between music, psychology, and the mind.

Other achievements include Minsky’s role as the inventor of the earliest confocal scanning microscope. He was also involved in the inventions of the first “turtle,” or cursor, for the LOGO programming language, with Seymour Papert, and the “Muse” synthesizer for musical variations, with Ed Fredkin.

Minsky received the world’s top honors for his pioneering work and mentoring role in the field of artificial intelligence, including the A.M. Turing Award — the highest honor in computer science — in 1969.

In addition to the Turing Award, Minsky received honors over the years including the Japan Prize; the Royal Society of Medicine’s Rank Prize

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Marvin Minsky honored for lifetime achievements in artificial intelligence



Marvin Minsky selected for Dan David Foundation Prize



Of minds and machines

(for Optoelectronics); the Optical Society of America’s R.W. Wood Prize; MIT’s James R. Killian Jr. Faculty Achievement Award; the Computer Pioneer Award from IEEE Computer Society; the Benjamin Franklin Medal; and, in 2014, the Dan David Foundation Prize for the Future of Time Dimension titled “Artificial Intelligence: The Digital Mind,” and the BBVA Group’s BBVA Foundation Frontiers of Knowledge Lifetime Achievement Award.

Minsky is survived by his wife, Gloria Rudisch Minsky, MD, and three children: Henry, Juliana, and Margaret Minsky. The family requests that memorial contributions be directed to the Marvin Minsky Foundation, which supports research in artificial intelligence, including support for graduate students.

A celebration of Minsky’s life will be held at the MIT Media Lab later this year.

Obituaries

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MIT NEWS

June 19, 2018





Method man

Alberto Abadie refines the tools of economics to evaluate how well policies have worked.

Asia’s water future

Following the Paris accord could reduce risk of severe water-access problems, researchers find.

Blubber substitute

MIT engineers develop a way to triple the survival time for swimmers in wetsuits.



Auditing pollution

Study finds reduction in sulfur emissions from power plants in China.

BBC reporter Dave Edmonds speaks to Prof. Esther Duflo, co-founder of J-PAL, about her use of field studies and randomized control trials to test the effectiveness of programs in developing countries. Duflo explains that by examining data from randomized control trials, “out of the noise emerges some kind of melody of the logic of behavior.”



AROUND CAMPUS

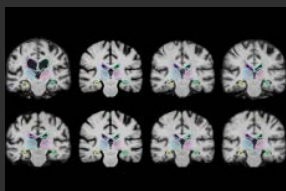


Audit Division announces Infinite Mile Awards

Boston Herald reporter Jordan Graham writes about Ori, a Media Lab spinout that aims to make apartments more functional and spacious through the use of robotic furniture. Founder and CEO Hasier Larrea, an MIT alumnus, explains that by using technology and robotics, “you can make a 300-square-foot apartment be much more functional than a traditional static 400-square-foot apartment.”



Letter regarding the retirement of John Charles, vice president for information systems and technology

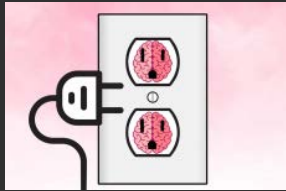


Faster analysis of medical images

Algorithm makes the process of comparing 3-D scans up to 1,000 times faster.

MIT engineers build smart power outlet

Design can “learn” to identify



plugged-in appliances, distinguish dangerous electrical spikes from benign ones.



MIT engineers configure RFID tags to work as sensors

Platform may enable continuous, low-cost, reliable devices that detect chemicals in the environment.



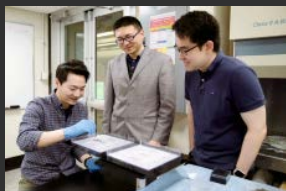
Metropolitan Storage Warehouse is potential new location for School of Architecture and Planning

Historic building would create "design hub" for MIT, with benefits for surrounding community.



MIT engineers recruit microbes to help fight cholera

Probiotic bacteria can diagnose, prevent, and treat infections.

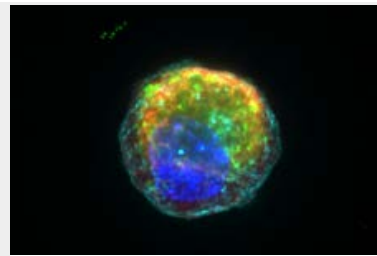


Magnetic 3-D-printed structures crawl, roll, jump, and play catch

New printing technique could be used to develop remotely controlled biomedical devices.

Teaching robots how to move objects

PhD candidate and Amazon Robotics Challenge winner



Charting a path to better cell models of the intestine



Robert Langer named 2018 US Science Envoy



Broadening the range of material rewards



Chris Caplice honored for creating first MicroMasters recognized by MIT

BOSTON Herald

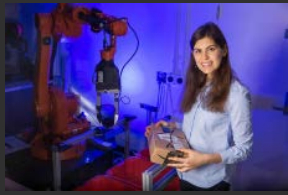
CNBC reporter Lora Kolodny writes about Spyce kitchen, an MIT startup that uses both humans and robots to make what it calls "complex meals." "Spyce has a stated goal of not replacing human chefs, explains Kolodny, "but helping them work faster, and make delicious meals more consistently, in its restaurants."



In an article for Bloomberg News, Prof. Daron Acemoglu writes about how countries that democratize tend to see faster rates of economic growth. Acemoglu notes that what tends to spur economic growth is how, "democracies increase taxes and spend more on education and health, preparing the economy to achieve greater productivity in the decades to come."

Bloomberg

In this video, *Mashable*



Maria Bauza helps to improve how robots interact with the world.



Reliable energy for all
Graduate student Prosper Nyovanie wants to power off-grid communities worldwide with scalable solar electric systems.



Setting The Standard for excellence



In profile: Jamshied Sharifi '83, Tony Award winner



CSAIL launches new five-year collaboration with iFlyTek

highlights a new method developed by MIT researchers to 3-D print soft robots that can crawl, fold and carry a pill. The team hopes the structures, which can be controlled with a magnet, could eventually be used as a medical device to take tissue samples or deliver treatments.

Mashable

Lara Lewington reports for BBC *Click* on how MIT researchers have developed a technique to create 3-D printed soft structures that can be controlled with a magnet. Lewington explains that the structures could eventually be used in biomedical devices to "take images, extract samples, deliver drugs or even surround a blood vessel to control the pumping of blood."

B B C

In an article for *The Boston Globe*, Micah Altman, director of research at the MIT Libraries, points to the safeguarding of sensitive information in scientific research as proof that it is possible to protect



MIT Professor Emerita Joan Jonas receives the 2018 Kyoto Prize

online privacy. With institutional review boards and informed consent practices, academia demonstrates “that you don’t have to choose between privacy and valuable data,” explains Altman.

The Boston Globe

MIT researchers have discovered that probiotics can prevent cholera and treat early stage cases of the disease, reports Laney Ruckstuhl for *The Boston Globe*. The findings, led by Prof. James Collins, “could have implications for other diseases as well because scientists were previously unaware that bacterial infections could be vulnerable to naturally occurring probiotics,” notes Ruckstuhl.

The Boston Globe

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