
The MIT Media Lab at a Glance

Actively promoting a unique, antidisiplinary culture, the MIT Media Lab goes beyond known boundaries and disciplines, encouraging the most unconventional mixing and matching of seemingly disparate research areas. It creates disruptive technologies that happen at the edges, pioneering such areas as wearable computing, tangible interfaces, and affective computing. Today, faculty members, research staff, and students at the Lab work in 24 research groups on more than 350 projects that range from digital approaches for treating neurological disorders, to advanced imaging technologies that can “see around a corner,” to the world’s first “smart” powered ankle-foot prosthesis. The Lab is committed to asking the questions not yet asked—questions whose answers could radically improve the way people live, learn, express themselves, work, and play.

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Organization

The Lab is supported by more than 80 members, including some of the world’s leading corporations. These members provide the majority of the Lab’s more than \$60 million annual operating budget. Businesses represented range from electronics to entertainment, fashion to health care, and greeting cards to telecommunications.

Research is conducted in a highly collaborative and antidisiplinary environment. Many of the technologies and applications conceived at the Lab are tested and refined through experiments at MIT and in the field, in cooperation with individual member organizations.

Unlike other laboratories at MIT, the Media Lab comprises both a degree-granting Program in Media Arts and Sciences and a research program. Over 50 faculty members, senior research staff, and visiting scholars lead the Lab’s research program, working with over 40 research staff members, 60 research affiliates, and close to 70 visiting scientists and postdoctoral researchers. Close to 100 other staff members support the Lab’s research, facilities, and administration.

Graduate enrollment totals 164, with 89 master’s and 75 doctoral students. In addition, more than 30 graduate students from other MIT departments carry out their research at the Media Lab, and more than 200 undergraduates come to work at the Lab each year through MIT’s Undergraduate Research Opportunities Program (UROP).

Research Efforts

Centers and joint programs combine the work of Media Lab researchers with collaborators throughout MIT, and smaller, more focused special interest groups and initiatives deal with particular subject areas.

Advancing Wellbeing, funded by a \$1-million grant from the Robert Wood Johnson Foundation, combines academics with on-the-ground ideas to promote better health at MIT and beyond.

CE 2.0, a collaboration with member companies to formulate the principles for a new generation of consumer electronics that are highly connected, seamlessly interoperable, situation-aware, and radically simpler to use.

The Center for Civic Media, a joint program with MIT’s Comparative Media Studies program, funded through a grant from the Knight Foundation, creates and deploys technical and social tools that fill the information needs of communities.

The Center for Extreme Bionics, which will draw on the Media Lab’s strengths in synthetic neurobiology and biomechanics, along with the MIT Langer Lab’s pioneering work in biotechnology and medical devices, to achieve radical advancements in the rapidly evolving field of bionics—work that aims to repair or even eradicate serious physical and mental impairments such as dementia, Parkinson’s, or limb loss.

Communications Futures Program, a joint effort focused on broad issues of communications—from telephony to RFID—with MIT’s Sloan School of Management and the Computer Science and Artificial Intelligence Laboratory (CSAIL).

Laboratory for Social Machines, funded by a five-year, \$10-million commitment from Twitter, is developing new technologies to make sense of semantic and social patterns across the broad span of public mass media, social media, data streams, and digital content.

Media Lab Learning, exploring learning across dimensions—from neurons to nations, from early childhood to lifelong scholarship, and from human creativity to machine intelligence. The initiative is designing tools and technologies that change how, when, where, and what we learn; and developing new solutions to enable and enhance learning everywhere.

Open Agriculture (OpenAg), builds collaborative tools and platforms to develop an open-source ecosystem of food technologies that enables and promotes transparency, networked experimentation, education, and local production.

Terrestrial Sensing, which explores unconventional ways to sense and visualize inaccessible natural environments—places where it is impossible for humans to go physically, such as underground, undersea oil fields, and the atmosphere.

Ultimate Media, a multi-group project that is working to build a new platform for visual media that reinvents real-time exploration and contribution.

A Sampling of Research Achievements

A **big data study** that finds that 90 percent of “anonymous” credit card users’ metadata can be reidentified with just a few pieces of information.

CityScope, an urban design system that combines high-definition video projectors, advanced modeling and simulation technology, 3D projection mapping, and physical models to create a real-time, interactive data environment for understanding and designing relationships between people and places in cities.

Collaborative symphonies, a new “musical ecology” for massive, crowd-sourced, and interactive music compositions. This democratic approach to composing integrates urban sounds and musical ideas from the public with an original musical composition. It is a way for a symphony to be composed not only *for* a city, but *with* a city.

Expansion Microscopy, a new technique to physically enlarge brain tissue samples, giving researchers high-resolution images of cellular activities.

Mushtari, the world’s first photosynthetic wearable that combines multi-material additive manufacturing and synthetic biology. The work is a prototype for an external digestive system embedded with living matter.

OpenAg, creating an open-source ecosystem of food technologies to enable and promote transparency, networked experimentation, education, and hyper-local production.

TRANSFORM, an interactive dynamic display that fuses technology and design to convert a tabletop into a dynamic machine driven by a stream of data and energy. It comprises three dynamic shape displays that move over 1,000 pins up and down in real time.