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# The MIT Media Lab at a Glance

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The MIT Media Lab transcends known boundaries and disciplines by actively promoting a unique, antidisciplinary culture that emboldens unconventional mixing and matching of seemingly disparate research areas.

**MIT Media Lab**  
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The Lab 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 25 research groups on more than 470 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. Lab researchers are committed to delving into the questions not yet asked, whose answers could radically improve the way people live, learn, express themselves, work, and play.

**Fall 2016**

## Organization

The Lab is supported by more than 80 members, including some of the world’s leading corporations. Our members provide the majority of the Lab’s approximately \$65 million annual operating budget, and their businesses represented range from electronics to entertainment, fashion to health care, and toys to telecommunications. We conduct research in a highly collaborative and antidisciplinary 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 our member organizations.

Unlike other laboratories at MIT, the Media Lab comprises both a broad research agenda and a degree-granting Program in Media Arts and Sciences. More than 30 faculty and senior researchers lead the Lab’s research program, working with over 150 research staff members, visiting scientists, postdoctoral researchers, and lecturers. Some 100 other staff members support the Lab’s research, facilities, and administration.

Graduate enrollment totals 174, with 94 master’s and 80 doctoral students. In addition, more than 45 graduate students from other MIT departments carry out research at the Lab, and more than 200 undergraduates work here each year through MIT’s Undergraduate Research Opportunities Program (UROP). Our targeted diversity efforts have also enriched the culture of the Lab, creating supportive spaces for women and students of color, and opening new lines of discussion throughout our community.

## A selection of research efforts

Centers and joint programs combine the work of Media Lab researchers with collaborators throughout MIT, while 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**, is 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, creates and deploys technical and social tools that meet the information needs of communities.

The **Center for Extreme Bionics**, is an interdisciplinary effort at MIT which challenges current assumptions about serious physical and mental impairments.

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**Media Lab Learning**, explores learning across dimensions—from neurons to nations, from early childhood to lifelong scholarship, and from human creativity to machine intelligence.

The **MIT Digital Currency Initiative (DCI)**, based at the Media Lab, musters global experts in areas ranging from cryptography, to economics, to privacy, to distributed systems to explore the many issues involved in blockchain and bitcoin technology.

**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** explores unconventional ways to sense and visualize inaccessible natural environments—places where it is impossible for humans to go physically.

**Ultimate Media** is 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**

**bioLogic** uses the behavior of a microorganism that reacts to atmospheric moisture to create a new type of clothing, called Second Skin, that becomes more breathable as the wearer's body heat and humidity increase.

**Electome** is a data analytics project that unlocks social media data to track voter perceptions. It is focused on the US presidential race, in particular on the intersection of news and social media.

**Enigma** lets computers mine encrypted data using bitcoin-based cryptography.

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

**G3DP (3D-Printed Glass)** is a manufacturing platform designed to print optically transparent glass. It synthesizes modern technologies with age-old established glass tools and technologies producing novel glass structures with numerous potential applications.

**Persuasive Electric Vehicle (PEV)** is a covered three-wheeler that makes biking more accessible. It addresses sedentary lifestyles, and provides energy-efficient mobility to help alleviate urban traffic by taking advantage of existing bicycle lane.

**PubPub** is a radical new research publishing platform that features capabilities for datasets, interactive visualizations, videos, and rich comments. PubPub invites nontraditional publication formats as well as real-time collaboration.

**Reality Editor** lets you connect, manipulate, and preset the functionality of physical objects with your phone.

**Scratch Blocks**, focused on helping other developers create high-quality coding experiences for children. These blocks bring together the vertical programming grammar of Scratch and the horizontal grammar of ScratchJr.

**Time-of-Flight Microwave Camera** can see through walls using microwaves to create high-resolution and 3D images of objects that are obscure to the naked eye.

**TRANSFORM** is 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.