



MIT's Work of the Future initiative envisions an economy where dramatic advances in automation and computation go hand in hand with improved opportunities and economic security for workers.

The Automation Clinic is an applied research and education program to understand how organizations make new technologies work in practice. MIT researchers and their partners work with organizations to learn the problems they aim to solve with new technologies, the challenges they face in deploying them, and the consequences for their workers, customers, and society. The aim is to train engineers and managers in what we call "positive-sum automation," or technology that improves productivity for organizations while also increasing flexibility for workers.

In 2022, the clinic launched in New England and has since developed partnerships with the Commonwealth of Massachusetts and studied automation projects at more than 20 industry participants. The Clinic is producing a series of digital case studies to teach the next generation of engineers and managers, as well as short documentaries illustrating the promise and challenges of automation. Episodes of 10-15 minutes will be published on YouTube and shared via MIT online channels.

The clinic aims to expand to other regions through partnerships with local organizations and universities. The regional partnership model will enable the clinic model to reach students and industry partners throughout the United States. These collaborations will help build a community of automation clinic researchers and industry partners, as well as a pool of public knowledge about the key factors for achieving positive-sum automation.

Program Goals

1. Generate public knowledge about the uses and impact of automation technology
2. Educate engineers-in-training about the challenges of technology implementation
3. Discover new automation possibilities to motivate technology design and adoption

Project Types

1. Innovative applications

Mobile robots in a small machine shop

Robots frequently move pallets in large warehouses, but small firms with limited automation face different obstacles.

2. Technology upgrading

From line to cell

Automating legacy processes often requires re-engineering workflow, creating new roles, and finding ways to synchronize diverse technologies.

3. Human-machine skills

Joint apprenticeships on advanced machining

Regional companies pool resources to train incumbent workers to thrive in an automated environment.

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Industry Collaborations

1. Industry partner introduces automation project to MIT team leads, who identify researchers to include in the clinic.
2. Automation clinic researchers conduct site visit or video tour of automation project to understand the process in detail. Industry team presents challenges and key objectives.
3. Clinic researchers set up follow-up meetings and visits with industry partner to track project progress over time.
4. Clinic team produces public video case study of automation project and / or written case study for educational use.

Active Clinic Projects

- 20+ industry participants
 - Small, medium, and large (20-1000+ employees)
 - Products range from metal hoses to electronic devices
- 11 MIT researchers involved
- Data partners include Massachusetts Technology Center, Universal Robots
- Embedded research projects, Midwest regional partner launching Fall 2023

Regional Partnerships

- Regional clinics support students to study automation through embedded research and internships
- Partners include local universities and regional organizations including foundations, government organizations and other non-profits
- Regional clinic participants visit MIT for training on automation clinic approach and participate in clinic community events.
- MIT research leads advise regional clinic students and visit industry partners

Sponsorship Benefits

Presenting sponsor

- Logo featured on Work of the Future website, videos, and at events
- Access bonus video / case study materials
- Option to engage MIT graduate students in embedded education opportunities

Regional sponsor

- Support student researcher visit to MIT for automation clinic training
- MIT research leads visit to regional industry partners
- Presentation of regional automation clinic lessons to sponsor and community partners
- All "presenting sponsor" benefits

Lead sponsor

- Named sponsor of event series featuring clinic participants
- Custom workshops based on clinic lessons
- Discounted access to MIT courses on automated systems
- All "regional sponsor" benefits

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