Technology Management is at the core of every successful company in the world, from Microsoft to IBM, from Siemens to GE, from Wal-Mart to Amazon, from Merck to Biogen, from Southwest Airlines to JetBlue. All of these leaders have achieved their success—or sustained it—through technology.

For the past decade, US News & World Report has ranked MIT Sloan #1 in Information Technology.
What is Technology Management?

Technology management bridges the gap between innovation, technology, and business through the development, implementation, and management of information technologies, bioengineering, nanotechnologies, and medical devices, among others. The importance of technology management has been clearly acknowledged by top managers seeking market share and competitive advantage.

Careers in technology are very broad—they can range from working in companies whose primary business is selling technology-based products and services (Microsoft or IBM), to companies who use technology to drive their business model (GE Capital or Fidelity), to companies who use technology to create their product (Biogen or General Motors). If a student’s interest in technology is externally focused—the direct connection between the product and the end user—then students might want to consider a sales, marketing, or finance career in a chosen industry. If a student’s interest in technology is internally focused—how to use technology to drive the overall strategic and competitive advantage of a company—then students should consider a career in technology management.

“The Information Technology and Digital Transformation seminar was a window into technology professionals who were practicing in the real world what we were learning in the classroom. The education you get at MIT Sloan is highly respected in the market. I work in Silicon Valley where a lot of respect is accorded to the engineers and entrepreneurs. There are a lot of MBAs out here, but being from MIT Sloan says that you know about technology and I have found that technical people respect that you went to MIT. Having that technical edge makes it easier to build bridges with the people who are developing the next new thing.”

Cynthia Ryan ’00
Global Alliance Manager,
Mercury Interactive Corporation
JOB SEARCH

Although the process for pursuing a career in technology management is less formal than those in finance or consulting, it still requires thorough preparation. Leading high-tech companies such as Microsoft, BEA, and Lucent require not only keen business acumen within finance or marketing functions, but also a deep understanding of the technology business. The following steps are helpful in launching a career in technology management:

1. Conduct in-depth research on the industry of your choice. Is it enterprise software? Biotech? Mobile and wireless? Remember that the term technology is very broad.

2. Attend a variety of company presentations organized by the CDO. Meet with speakers and create a connection with them.

3. Talk to professors within technology-oriented research centers. Professors Thomas Malone, Peter Weill, Stuart Madnick, Erik Brynjolfsson, and Cyrus Gibson have excellent relationships with technology leaders.

4. Attend the MIT Sloan Center for Information Systems Research (CISR) IT-related career fair during the fall.

5. Approach classmates who have worked at technology companies and learn more about these businesses, their competitors, and the corporate dynamics at work from someone who has been there.

6. With the exception of the large technology companies who recruit at MBA schools, expect a much longer timetable for securing technology management positions, as hiring needs are much more just-in-time oriented.

“MIT Sloan taught me the importance of business and technology professionals seeing eye-to-eye in the corporate world. Technology is no longer a back-office function, but rather a critical strategic driver, which makes an MBA from MIT an extremely valuable asset to today’s business leaders.”

Mark C. Crowley ’98
IT Strategy Manager, Verizon Communications
Inside the Classroom

MIT SLOAN TECHNOLOGY COURSES

15.358 The Software Business
15.363 Strategic Decision Making in the Biomedical Business
15.365J Disruptive Technologies: Predator or Prey?
15.393 Technology and Entrepreneurial Strategy
15.561 Information Technology Essentials
15.571 Generating Business Value from IT
15.578 Global Information Systems
15.912 Technology Strategy
15.xxx Medical Innovations

OTHER RELEVANT MIT SLOAN COURSES

15.351 Managing Innovation and Entrepreneurship
15.369 Corporate Entrepreneurship: Strategies for Technology and New Business Development
15.390 New Enterprises
15.399 Entrepreneurship Lab

PROSEMINARS

15.597 & 15.958 Information Technology and Digital Transformation Proseminar I & II

MIT SLOAN INNOVATION PERIOD

During the MIT Sloan Innovation Period (SIP), which occurs for a week during each mid-semester, students attend seminars and interactive sessions on research and leadership topics.

Some of the most effective and successful technology leaders of today have spoken to MIT Sloan students recently. Among them were Michael Dell, chairman & CEO of Dell Computers; Lou Gerstner, former chairman and CEO of IBM; Jeff Rikes, S.V.P. of Microsoft Corp; David Shpilberg, director for IT strategy, Bain & Co.; Frank Erbrik, former CIO of UPS and Partner/Founder of BTO, McKinsey & Co.; Tom Davenport, director, Accenture Strategy Group; Jeff Lynn ’72, WW director of services, Dell; and Kenan Sahin ’69, founder and CEO of Kenan Systems.
Students are eligible to take courses throughout MIT or Harvard University. Fellow classmates are often a good source for information on interesting and relevant classes.

In addition to taking classes, students can participate in research, or write technology management-related theses.

**FACULTY PROFILE**

When Gartner Group, the indisputable world leader in IT advisory and research services, required a fresh approach on the issues of how to run an IT department and how interactions with senior management should be approached, they contacted Professor Peter Weill from MIT Sloan’s Center for Information Systems Research (CISR), a leading expert on IT governance. Professor Weill’s research centers on the role, value, and governance of information technology in enterprises in such areas as IT portfolios, infrastructure, and architecture. Professor Weill is the co-author of *Leveraging the New Infrastructure: How Market Leaders Capitalize on Information Technology* (HBS Press 1998), and *Place to Space: Migrating to e-Business Models* (HBS Press 2001), the latter of which won the Library Journal of America’s Best Business Book of the Year Award.

Professor Thomas Malone’s research focuses on how new organizations can be designed to take advantage of the possibilities provided by information technology. For example, in 1987 Professor Malone predicted many of the major developments in electronic business over the last decade: electronic buying and selling, electronic markets for many kinds of products, “outsourcing” of non-core functions in a firm, and the use of intelligent agents for commerce. The past two decades’ worth of Professor Malone’s research is explored in his forthcoming book, *The Future of Work: How the New Order of Business Will Shape Your Organization, Your Management Style, and Your Life*. Professor Malone has been a cofounder of three software companies and has consulted and served as a board member for a number of other organizations. He has published over 50 research articles and book chapters, is an inventor with 10 patents, and is the co-editor of three books.
Active participation in the MIT Sloan community through clubs and other activities is a critical aspect of the MIT Sloan experience. It is an opportunity to further develop leadership and teamwork skills, to increase one’s understanding about industries and current management practices, and to begin developing a professional network that will last a lifetime.

**CONFERENCES**
- Deshpande Center’s IdeaStream
- Industrial Liaison Program’s (ILP) Innovation in Management Conference
- HBS/MIT Sloan’s CyberPosium

**MEDIATECH CLUB**
With over 400 members, the MediaTech Club is one of the largest student organizations at MIT Sloan. The goal of the club is to educate members about the high-tech and media industries and to provide opportunities to interact with companies in these fields. Some of the technology leaders who have spoken before the club are Mark Lewis, CTO of EMC Corporation; Ray Stata, chairman and founder of Analog Devices; John SanGiovanni, manager of Mobile Devices Group, Microsoft; Jason Kilar, VP of Worldwide Software Applications for Amazon.com; Justin Hockberg, director of Business Development for Microsoft; Greg Papadopoulos, CTO of Sun Microsystems; and Stuart Scantlebury, VP of IT for Boston Consulting Group.

**TECH TREKS**
Each year, the MediaTech Club organizes MIT Sloan’s renowned tech and media treks to leading technology and media centers around the world. Trips in the past have included visits to Silicon Valley, Asia, New York, Hollywood, Las Vegas, Seattle, Miami, Washington DC, and Massachusetts. In 2003 alone, MIT Sloan students visited over 300 companies.

The Silicon Valley Tech Trip paired over 100 students interested in technology and innovation with 30 high-tech companies. Students visited Bank of America, BEA Systems, Cisco, Kleiner Perkins, Genentech, Google, Hewlett-Packard, IBM, Intel, Nortel (XROS), Siebel Systems, and Xerox Parc, among others. Club members also met with executives and networked with MIT Sloan alumni.
ALUMNI
If you combined the revenues of companies founded by MIT faculty and graduates, MIT would be the 24th largest economy in the world. One effective resource that MIT Sloan provides is the most significant technology alumni network in the world.

MIT MEDIA LAB
A prime example of the cross-disciplinary research conducted at MIT, the Media Lab focuses on the study, invention, and creative use of enabling technologies for learning and expression by people and machines. The Media Lab offers students across MIT a window into new technologies and exposure to cutting-edge research. Many MIT Sloan students have taken advantage of the resources of the lab to explore their interests in technology and expand their knowledge base.

CENTER FOR INFORMATION SYSTEMS RESEARCH (CISR)
CISR was founded 25 years ago and has a strong track record of practice-based research on the management of information technology. As we enter the 21st century, CISR’s mission is to perform practical empirical research on ways in which firms generate business value from IT. CISR disseminates this research via electronic research briefings, working papers, research workshops, and executive education. Recent and current research topics include effective IT governance, IT architecture, IT infrastructure, benchmarks and performance, an NSF project on IT impacts, risk profiles and IT capabilities, and managing emerging information technologies.

CENTER FOR EBUSINESS
The Center for eBusiness at MIT was created in partnership with industry professionals to better understand the opportunities for radical change created by eBusiness. Its aim is to provide thought leadership in Internet-focused technology, management, and business strategy through initiatives in education and research. The center draws on key MIT resources, including the World Wide Web Consortium, the MIT Laboratory for Computer Science, the MIT Media Lab, the Internet and Telecom Convergence Consortium, and the Integrated Supply Chain Management Program.
Typical Careers

Technology management positions typically lead to three distinct types of end points. One is Chief Information Officer (CIO) or Chief Technology Officer (CTO)—and every company in every industry has them. These roles require a deep understanding of the business and how technology can drive competitive advantage and innovation. In this position, a CIO or CTO deals with IT budgets (often the largest single budget item after staffing costs), evaluating outsourcing strategies, vendor management, assessing new technologies, large staff management, managing internal and external customer support centers, and balancing the technology needs of competing and often contradictory business units. The second end point is general manager—such as division head or CEO—in companies such as IT vendors or start-up firms where technology is the product. Finally, there is a general manager in a company that transforms itself into a digital business. The general manager in these firms must be conversant and experienced in all the underlying management fields, including marketing, operations, finance, and human resources. This particular subset of technology-driven businesses is expected to grow and will increasingly require technology managers.

Typically, MIT Sloan students will begin this career path in one of two ways:

1. **IT Project Managers** within a company such as UTC could support a worldwide customer relationship management (CRM) rollout or;

2. **Technology Consultants** in a firm such as McKinsey’s Business Technology Office would work with clients on their technology issues.

Either path can lead to the same destination—the primary difference being whether one enjoys the satisfaction of living with the success (or failure) of their technological creations, or if one prefers to help other organizations strategize how to change their business through technology.

This brochure, prepared by students in the MIT Sloan community, serves as a guide, and is not meant to be prescriptive. The MIT Sloan community is lively and ever evolving. Some opportunities will exist while others are subject to change. Please plan accordingly.

For further information, current students should talk with their cohort advisors. All others should contact the Admissions Office at 617.258.5434.