# THE ERA OF THE TECHNOLOGY SAVVY BUSINESS

WHEN WE THINK OF LEADERS, WE THINK OF people who have the capacity to inspire, to captivate, to build trust and, most importantly, to radically change things to advance a common purpose. For today's business leaders, advancing that common purpose requires the astute management of technology.

The psychology of leadership revolves around a deep-seated disdain for incremental improvement and conservative thinking. Leaders become successful by seeing opportunities where most see problems, by seeking innovative solutions to difficult problems, and by refusing to be discouraged by setbacks and disappointments.

Today and for the foreseeable future, business leaders must face the challenges of transforming their organizations to respond to the ever-increasing demands of a knowledge-based economy. To be sure, meeting these challenges still requires the knowledge, skills and abilities that comprise the traditional leadership profile. That is, business leaders need to build trust, to inspire and motivate, to articulate a clear vision for the future, and to develop a plan to realize that vision. To accomplish these goals, they need excellent interpersonal skills, highly developed analytical and creative thinking abilities, fundamental business knowledge and a passion to generate change.

However, while this is an impressive array of traits and abilities, it is not enough to sustain successful leadership in the current, and future, business environment. The missing piece of the puzzle lies in the capability to manage technology *strategically* — the ability to think strategically about business and technology.

The need for technology savvy leaders can be traced to the rapid technological change that has taken place during the past two decades and which
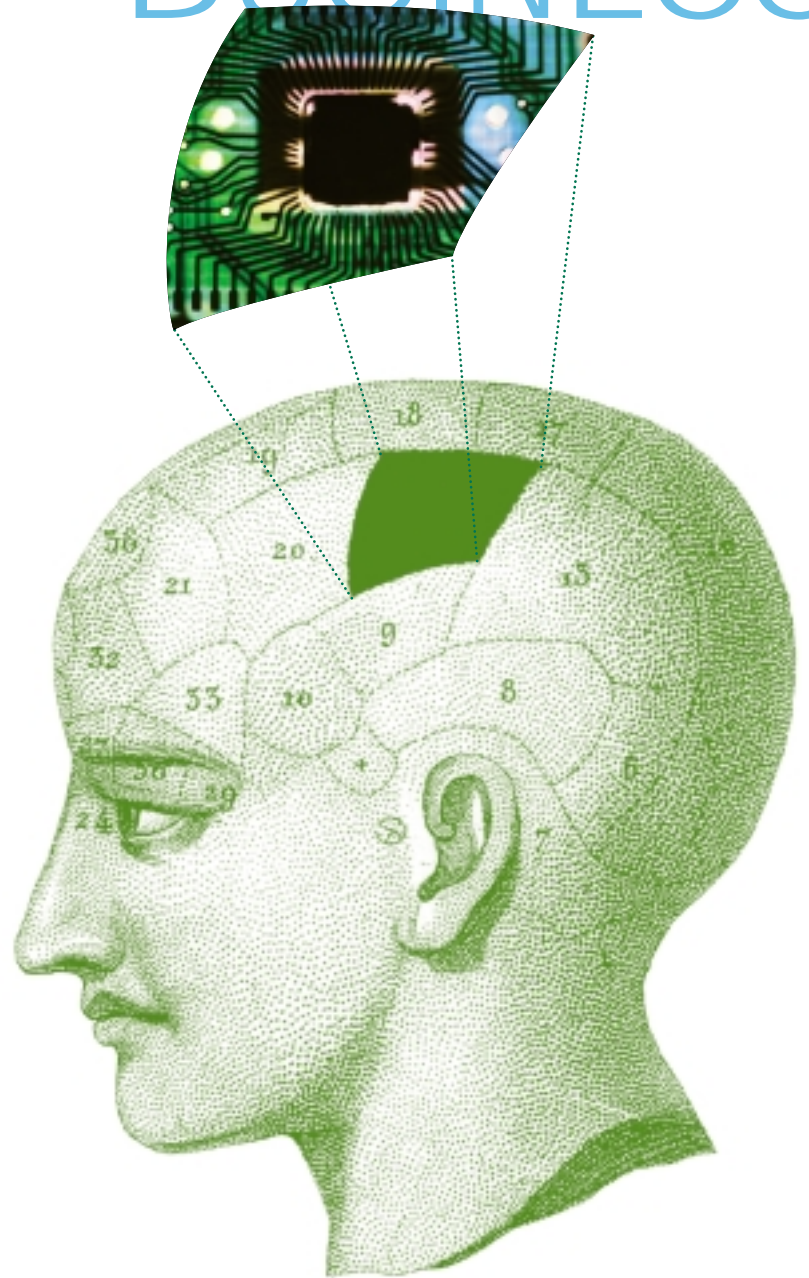
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continues at an even faster pace today. New technologies have not only created new markets, products and services, they have also fundamentally transformed how business is conducted in all industries and companies. These massive and ongoing structural changes have, in turn, created a need for business leaders who understand how to integrate new and emerging technologies into their strategic planning to develop innovative forms of competitive advantage.

Bill Rapp, the Henry J. Leir Professor of International Trade at the NJIT School of Management (SOM), demonstrates the importance of technology savvy leadership in his latest book, titled *Information Technology Strategies, How Leading Firms Use IT to Gain an Advantage*. Rapp explains how firms have combined industry-specific factors and information-technology expertise into their business strategies to achieve long-term competitive advantage.

As Rapp writes, businesses that do not use IT to develop markets, products and customers, "have no IT strategy at all and are not in the game." But for a company like Toyota, the use of newly developed and effectively integrated IT systems has been key to creating smart and environmentally friendly vehicles far more advanced than any of its competitors.

Another dramatic illustration of technology savvy leadership comes from Steven Jobs, Apple Computer's legendary CEO. Apple's recently introduced iTunes on-line music service has become a major commercial success by providing an integrated solution that allows consumers to quickly and easily download music and then play it on Apple's iPod. In launching iTunes, Apple used new technologies to drive an innovative business model that, in turn, provided a service that has been enthusiastically welcomed by consumers and the music industry.

While it is clear that technology has strategic implications for business, the typical business school curriculum continues to focus on the operational aspects of established technologies. Emerging technologies are often cast in the secondary role of enhancing traditional business functions such as marketing rather than as a primary source of innovation.

For the past two years, SOM faculty have been talking with high-level executives from local and national businesses and thinking about how to refine our degree programs to develop technology savvy leaders. Our objective is to prepare a new generation of business leaders with the ability to align technology strategy with business strategy to develop new products, markets and services, to use technology to translate information into knowledge, and to manage the ongoing transition to a digital economy.

Our view of technology as a critical success factor in business serves as a guiding principle in meeting this objective. The importance of technology as a source of competitive advantage and as a driver of new organizational forms is emphasized throughout our curricula. It is essential for students to understand that technology is not only having a macro-level effect on markets and industries, but that it is also having a profound effect on how people interact and how work is structured. Business leaders, therefore, will need the skills to manage global, virtual work teams in highly decentralized, networked organizations.

At SOM, we have also come to realize that management education will be profoundly affected by technological change. SOM's curricula are now reviewed annually for currency and relevance, and major revisions occur every two years as opposed to the more typical time cycle of four to five years. SOM currently offers innovative, cutting-edge courses in electronic communities in organizations, knowledge management, IT strategy, and data mining with an emphasis on business intelligence systems.

There is only one certainty in the current business environment — continual, rapid, unpredictable change. Much of that change will be technological in nature and the future will belong to business leaders who can leverage technology to capitalize on the opportunities that arise in this fast-evolving competitive arena. ■

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