

eLeadership for the 21st century: coping with new challenges: a compendium

by Frank Owarish, Ph.D

Introduction

Leadership has always been a crucial factor in the advancement of society as a whole and of specific segments thereof such as government organizations or business companies. No entities can progress without leadership. Studies have been undertaken over time to capture the essence of leadership and much has been written about the subject which is even taught in several universities. Leadership can be exercised by a single person or by a group (collective leadership such as that of a university senate) depending on the context. There are also different expectations from leaders depending on the particular socio-political context. As society has evolved and become more complex, leadership has become more demanding.

Leadership which may have been successful in a prior era may not be suited to a new era. Leadership may also have to be adapted to specific circumstances. While there is much to the credit of the so-called democratic leadership, there may be situations which require a strong hand such as autocratic leadership. Also, leadership which may be suitable for a traditional society may not be suitable for a modern technological society. The so called advanced, developed, societies are facing leadership challenges. The context has changed drastically over the years, yet leaders with style which may have worked in the previous era often do not realize that a new leadership approach may be needed. Many businesses were set up in the pre-technological era and they are expected to evolve to meet the requirements of the new era and succeed or else fail. Yet many of the leaders of the previous generation feel that they can continue on with a leadership which may have worked out in the past but may not be adequate in the new context. Leaders trained in another era have difficulties facing the new realities of the electronic world. Society is moving from the information era to the knowledge era; few understand the implications, perhaps those in the academic world who are contributing to creating the new technological revolution through their research and teaching and those managing research and development in hi-tech companies. Today's leaders are expected to be technologically savvy. The Obama Administration is a group which came to power as a result of skillful use of technological means of generating political support. A strong and sustained effort was made to reach out to the young with the new technological means such as the smart phones and Youtube and to the older generation with the traditional means, such as face to face communications. Today the Obama Administration communicates effectively to the constituencies through various technological means.

In 2001, Melissa Raffoni (Harvard Business Review, Oct 15, 2001) "Today it's hard to conceal a smirk when someone mentions a term like e-leadership. Although it's fine to enjoy a good chuckle at the

way the svengalis of the New Economy have received their comeuppance, don't let your skepticism get out of hand. A review of several recent books suggests that many of the principles of e-leadership still have merit, even if they could be made timelier...by the infusion of pre-Internet era wisdom." We have come a long way ever since, with e-Leadership taking more and more center stage.

The computer-communication revolution: reaching to the clouds; riding the wireless wave

Computer-communication systems have drastically changed society in the recent years and the transformation is still ongoing and appears to be never ending. We process information albeit knowledge differently than in the past and we communicate these also in new ways. New electronic entities have emerged to take the lead and it is often immaterial who the leaders are as long as these entities exercise the leadership needed. Do we need to know who are the 'magicians' at IBM, Oracle or GE; we think we know about Apple. We know who the CEOs are but we also know that they may be the 'drivers' or not, or that they may exercise a style of leadership which allow the technological leaders to get things done; they are thus self-effacing.

Computer-communication systems have been making significant contributions to society at large and to the ways companies are led. Leadership which used to be based upon authority and hierarchy is no longer adequate to deal with the new situations facing companies. The new leadership which encompasses e-Leadership is information-knowledge based. Most organizations have gone through a flattening process whereby information technology/knowledge technology reduce the number of layers needed in any organization. "Large, bureaucratic organizations, which primarily developed before the computer age, are often inefficient, slow to change, and less competitive than newly created organizations. Some of these large organizations have downsized, reducing the number of employees and the number of levels in their organization hierarchies. Behavioral researchers have theorized that information technology facilitates flattening of hierarchies by broadening the distribution of information to empower lower-level employees and increase management efficiency. It pushes decision-making rights lower in the organization because lower-level employees receive the information they need to make decisions without supervision (this empowerment is also possible because of higher educational levels among the workforce, which gives employees the capabilities to make intelligent decisions). Because managers no receive so much more accurate information on time, they become much faster at making decisions, so fewer managers are required. Management costs decline as a percentage of revenues and the hierarchy becomes much more efficient. These changes mean that the management span of control has also been broadened, enabling high-level managers to manage and control more workers spread over greater distances." (Laudon, 2010)

A new leadership, albeit e-Leadership, is needed in a context which is constantly evolving. This leadership requires coping with a sea of information and knowledge. Now that there is so much more information and knowledge one of the attributes of leadership is to be to analyze and synthesize information/knowledge at a quicker pace than ever before and organizations able to do so become much more competitive than those not able to do so. By blending information and knowledge it is now possible to produce intelligence more than ever before and developing and using intelligence is a crucial consideration in leading any entity be it governmental, on profit or for profit. Who can forget the 'gaps' in leadership by failures to 'connect the dots'.

Leadership of new electronic entities

There are more and more electronic entities in existence than ever before; also many of the entities of the previous generation are undergoing change to become electronic-oriented to be equipped to deal with a world dominated by electronic entities. Take the case of Barnes and Noble compared with Amazon.com. The following news clip shows Barnes and Noble edging to e-Leadership in its sector failing which it stands to lose ground to its competitors.

"Barnes & Noble Inc. (BKS) will move further into selling books online and through digital downloads, but retain its stores as key elements as it begins the next chapter of its growth, the bookseller's new chief executive said. "Electronic sales and digital books will be the key to our future," said William Lynch, who was named CEO Thursday. At the same time, the biggest bookseller by revenue will keep the number of its stores unchanged as standalone shopping and meeting sites and places to procure digital content. The comments came during a conference call in which Barnes & Noble executives discussed the reasons for tapping the president of the company's Web site as its new chief executive. Lynch succeeds Steve Riggio, who held the post since 2002. "We want to integrate our traditional stores with our online offerings," said Chairman Leonard Riggio. "To thrive and prosper, we need to step up the pace to move into the future."

Lynch, 39 years old, joined the bookseller in February 2009 and has worked to develop the company's e-commerce business and launched its digital commerce platform, including the big-selling Nook e-reader. Before that, he had worked at home-shopping company HSN Inc. (HSNI), running HSN.com. The goal is to provide the Barnes & Noble customer with "access to content at any place or any time," Lynch said.

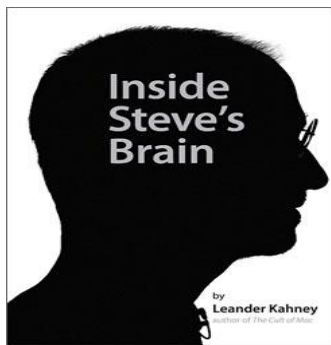
The executives indicated plans to speed the integration of stores with online and digital content, but did not offer a timeline. They did indicate the number of stores is not expected to grow anytime soon, although they added the book market will not transform into solely a digital and ecommerce business. The move to step up the pace on online and digital offerings comes as book readers have moved into nontraditional areas, like digital books, sapping the revenue of traditional booksellers. The world's biggest brick-and-mortar bookseller said last month its fiscal third-quarter profit declined slightly as same-store sales dropped by more than expected. Barnes & Noble also forecast a fourth-quarter loss. One bright spot was the company's online arm--revenue generated from its dot-com business, which included sales of the Nook, increased 32% from a year earlier. Barnes & Noble has been feeling pressure from activist investor Ronald Burkle, who in February objected to the board's rejection of his request to

acquire 37% of the bookseller's common stock without triggering a "poison pill" antitakeover provision. In a November filing with the Securities and Exchange Commission, Burkle, whose Yucaipa Cos. holding company owns around 19% of Barnes & Noble, expressed concern about the adequacy of Barnes & Noble's corporate governance, specifically in connection with the company's purchase last year of Barnes & Noble College Booksellers Inc., which had been privately owned by Leonard Riggio. Steve Riggio, Leonard's brother, will remain vice chairman "and be actively involved in the company," Barnes & Noble said. Meanwhile, the company promoted Chief Operating Officer Mitchell Klipper to CEO of its retail group, which consists of the Barnes & Noble retail business as well as the newly acquired Barnes & Noble College Booksellers business. Standard & Poor's Corp. maintained sell recommendation for shares. "We think this change clearly demonstrates a strategic shift for the company as it works to establish itself as a dominant player in e-commerce and distribution of digital content," said retail analyst Michael Souers, "However, we maintain that the shares are expensive," trading at over 25 times S&P's fiscal 2011 earnings per share estimate of 87 cents. Barnes & Noble shares are up 12 cents, or 0.5%, to \$22.45."

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(NEW YORK (Dow Jones, March 18, 2010)--Nathan Becker contributed to this article.

Traits of an eLeader



[+ Enlarge](#)

'Inside Steve's Brain', by Leander

Kahney; Portfolio; 288 pages;

\$23.95

Review By [Jon Swartz](#), USA TODAY

Probably no figure in Silicon Valley history has inspired more curiosity or attained a greater mythical status than Steve Jobs, the icon behind Apple ([AAPL](#)). For decades, journalists have toiled in vain to offer a peek behind the curtain of the Wizard of Cupertino, Calif. Not for lack of trying. Jobs has famously remained tight-lipped and cloistered in secrecy, offering interviews to few reporters. And, on those rare occasions, yielding little or no insights into his personal thoughts. In many ways, he is tech's version of Charles Foster Kane, the mysterious protagonist in *Citizen Kane*. There have been book attempts. The best of the lot — Alan Deutschman's *The Second Coming of Steve Jobs*, snappily written and meticulously researched — got no closer to the inner Steve than anyone else. Now comes a fresh, noble perspective from Leander Kahney, news editor at Wired.com and a longtime follower of Apple and its mercurial co-founder. Rather

than float on the periphery of the Jobs gestalt, he's decided to get inside the man's head. (Jobs did not respond to Kahney's requests for an interview.) What emerges is *Inside Steve's Brain*, which offers insightful nuggets on the mind/personality that helped create personal computers and digital music players for the rest of us while moonlighting as a modern-day Walt Disney at Pixar, the groundbreaking animation studio. Kahney posits that Jobs has molded his conflicting personality traits into a business philosophy that has had as much impact on society as Henry Ford or Walt Disney. According to Kahney's provocative book, Jobs is an elitist who dismisses most people as "bozos," yet he makes devices so simple anyone can use them. He's an obsessive creature with a volcanic temper, but he forges deep partnerships with creative artists such as Academy Award-winning animator John Lasseter, design whiz Jonathan Ive and Steve Wozniak. A Buddhist, he produces mass-market goods in Asian factories, and he promotes them with the zeal of P.T. Barnum. In short, Kahney writes, "Jobs has embraced the personality traits that some consider flaws — narcissism, perfectionism, total faith in his intuition — to lead Apple and Pixar to triumph against steep odds. And in the process, he has become a self-made billionaire." Ultimately, Jobs' unconventional ways and management practices serve their purpose. Perhaps no other company has been as good at giving customers what they want before they know they want it, Kahney writes. The fun stuff lies in the details of Apple's idiosyncrasies — from the corporate politics inherent in parking for employees to the protocol for entering conference rooms. They abound in this book. Lest anyone underestimate Jobs' micromanaging ways, consider this tidbit: His exacting standards cover such esoteric details as the number of screws on the bottom of a laptop and the curve of a monitor's corners. Apple is all about messianic zeal, as any of its millions of devotees will attest. Kahney has produced a rich, essential read for them to get inside Jobs' head and discover what makes Apple insanely great.

Corporate Leadership: the Jack Welch Way

By: [Vadim Kotelnikov](#)

Founder, [Ten3 Business e-Coach](#) – Inspiration and Innovation Unlimited!

Jack Welch has been with the General Electric Company ([GE](#)) since 1960.

Having taken GE with a market capitalization of about \$12 billion, Jack Welch turned it into one of the largest and most admired companies in the world, with a market value of about \$500 billion, when he stepped down as its CEO 20 years later, in 2000. Although Jack Welch is "the celebrated leader of a global manufacturer often noted for its technological prowess, he has utilized a very human process to [drive change](#) through GE's vast organization. Having respect for the individual as a pivotal force in organizational change, Welch created a model of exceptional performance every corporate leader can learn from.

[Why Change Fails: 8 Common Errors](#)

The Role of the Leader in the New Economy

As Jack Welch wrote in a letter to shareholders: "In the old culture, managers got their power from secret knowledge: profit margins, market share, and all that... In the [new economy](#), the role of the leader is to express a [vision](#), get buy-in, and implement it.

[12 Leadership Roles](#)

That calls for open, caring relations with every employee, and face-to-face communication. People who can't convincingly articulate a vision won't be successful.

But those who can will become even more open – because success breeds self-confidence."

Welch believed that great business leaders have to:

1. possess large doses of energy, and
2. know how to use that energy to **energize others**.
Welch moves from meeting to meeting, conveying that message – and the host of other ones as well, some of which have become his trademarks:³

- Business is simple.
- Don't make it overly complicated.
- Face reality.
- Don't be afraid of change.
- Fight bureaucracy.
- Use the brains of your workers.
- Discover who has the best ideas, and put those ideas into practice.

Prescription for Winning in Business: 3Ss

Jack Welch summed up his prescription for winning in three words:

- [Speed](#)
- [Simplicity](#)
- [Self-confidence](#) ... [More](#)

Strategies for Leading Breakthroughs

So what separates [extraordinary leaders](#) from proponents of the status quo? [They break the rules](#). Except, not in an arbitrary or capricious way. When you look at examples of extraordinary leadership, like the Founding Fathers of the United States or Jack Welch of [GE](#), certain practices or principles become apparent. To start, there is a [declaration of what the future will be](#). There is also a purpose, something to stand for. And finally, there is a clearly articulated commitment... [More](#)

Employee Empowerment

Under Welch's leadership, managers had wide latitude in building their GE units in [entrepreneurial fashion](#). Determined to harness the collective power of GE employees, Jack Welch redefined also relationships between boss and subordinates. He wrote: "The individual is the fountainhead of **creativity** and **innovation**, and we are struggling to get all of our people to accept the countercultural truth that often the best way to manage people is just to get out of their way. Only by [releasing the energy and fire of our employees](#) can we achieve the decisive, continuous productivity advantages that will give us the freedom to compete and win in any business anywhere on the globe."

**Discover much more lessons from Jack Welch
in the [FULL VERSION of e-Coach](#)**

Jack Welch's Recipe for Winning Employees' Hearts and Minds...

Understanding Strategic Issues...

Asking Effective Questions...

Redesigning Organization...

Creating Change...

Leading Transformational Change...

Business Innovation...

Transforming the Old Management Model...

Getting Rid of Bureaucracy...

Turning Managers into Leaders...

People Power...

Employee Empowerment...

Energizing Employees...

Attitude Motivation...

Build a Star Team, Not a Team of Stars...

Harnessing the Power of Diversity...

Organizational Transformation...

Building a Learning Culture...
Learning Organization...
Idea Management...
Creativity Management...
Entrepreneurial Organization...
Behave Like a Small Company...
Systemic Innovation...
Creating Vision...
Setting Stretch Goals...
Stretching Business Strategy...
Setting Objectives...
The Four E's of Leadership...
Venture Strategies...
Speed...
Simplicity...
GE Leadership Effectiveness Survey (LES)...

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Major transformation of society calling for new leadership

The key to progress for countries and companies in the twenty first century is to ride 'The Third Wave' (Toffler) and to master 'The Power Shift' (Toffler).

“Alvin Toffler is an historian and futurist. In *The Third Wave* he presents an historical view of our two previous civilizations types, a look at the new Third Wave economy, and an analysis of the conflicts that arise between the warring forces of these three civilization types as change sweeps across the globe. Now sure, we've all read the endless Wired articles about the New Economy with it's virtuous circles, network effects, and general cyberiffic rosy view of the future, but this book is where it all came from. The truly amazing thing is that Toffler wrote the third wave almost 20 years ago, in an era before the World Wide Web, before the IBM PC, and before anyone knew that Vader was Luke's father. While some of the ideas never came to fruition, it remains an amazingly accurate picture of the future.

The book starts off with a lengthy description of First and Second Wave civilizations. A First Wave economy is agrarian society where everyone makes their own products for their own consumption and there is little or no trading between households. A Second Wave civilization is an industrial society. Rampant specialization and economies of scale have taken over as people form into larger and larger groups like corporations and nation-states. The key indicators of a Second Wave economy are standardization, specialization, and centralization. Almost no one creates products for themselves, but instead people spend most of their time working in a factory creating products to be sold to others. This split of producer and consumer is the primary sign of a Second Wave economy and, according to Toffler, one of the major reasons for strife and chaos in the modern world.

After covering the first two economies (with most of his time spent on the second) Alvin Toffler begins his description of a Third Wave economy, which America has already started to become. (This was true at the time of the writing. I'd say it's well underway now). The key tenets of a Third Wave economy are de-massification and de-centralization. Products will no longer be standardized in huge factories, but, using new manufacturing technology, will be customized in extremely small production runs; sometimes a single unit. Consumers will have a bigger part in the creation of the products they buy, turning the producers and consumers into 'prosumers'. All bureaucratic structures will be de-centralized. National governments will divest more power to regional governments and global organizations that deal with the problems of our new world wide economy. Corporate structures will also be de-massified, giving more power (and economic payoff) to people lower on the ladder.

The key to a Third Wave civilization is flexibility: people work when they want, where they want, and for whom they want. These are all traits found in technology startups and are becoming more common in traditional industries. Flextime, tele-commuting, and stock options all fit very nicely into this future. And they are all features we should look for in prospective companies.”

(Credit: Joshy <http://slashdot.org/books/99/05/10/1824225.shtml>)

In 'Powershift', "Toffler carries forward his earlier analysis with an exploration of how individuals, organisations and nations will be affected by inevitable changes in the way power is perceived and applied. He talks of a "... new power system replacing that of the industrial past."

The 'powershift' term of the title has a meaning for Toffler which is very different from the usual meaning of the two words 'power shift'. He says in the book that, while a power shift is a transfer of power, a 'powershift' is "... a deep-level change in the very nature of power." A powershift does not merely transfer power, but also transforms it. In Powershift, we are reminded of the three basic sources of power: Violence, Wealth and Knowledge. All businesses work in what Toffler describes as a "power-field" in which these three "tools of power" constantly operate. He goes on to claim that the rising importance of knowledge, so eloquently argued throughout the trilogy, has brought about a profound change in the balance of these three powers. There is no comfortable hint in Powershift of an early solution to the problems associated with change. Toffler talks about the struggles to come as individuals, businesses and national economies move away from their traditional power reliance towards a new dependence on knowledge. Furthermore, in his view, the problems will not be over when these power conflicts are resolved, since he sees even greater challenges ahead as world divisions develop between "fast" and "slow" economies. Another of Toffler's powerful ideas, explored in detail throughout the trilogy but most strongly in Powershift, is what he calls "de-massification". By this Toffler means a complete reversal of the trend towards "mass" solutions so prevalent in the late 20th century. He sees mass marketing giving way to niche and micro-marketing; mass production being replaced by increasingly customised production; and large corporations being broken down into a number of small, autonomous units. Even politics and the concept of nationhood, Toffler believes, will be affected by the pressure to "de-massify". This pressure, he suggests, is being created by the increasing awareness of

better-informed individuals, and is becoming practical through the unstoppable development of information technology.”

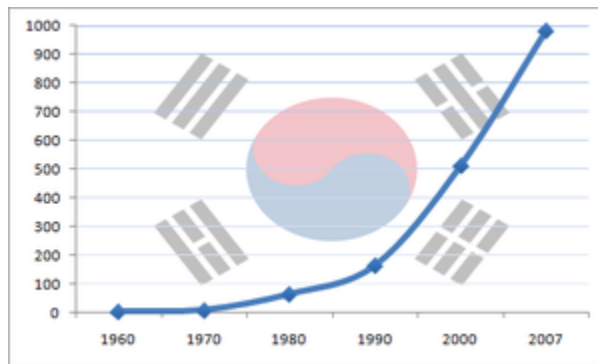
<http://www.thefreelibrary.com/Alvin+Toffler+:+The+Futurologist%27s+Futurologist.-a085608629>

eLeadership: a tale of two cities

Miracle on the Han River

From Wikipedia, the free encyclopedia

For the historical context of this phrase, see [Economy of South Korea](#).



The [South Korean economy](#) grew almost non-stop from near zero to over a [trillion dollars](#) in less than half a century.

Miracle on the Han River ([Hangul](#): 한강의 기적 *Hangangeui Kijeok*) refers to [South Korea's](#) highly accelerated [export](#)-fueled [economic growth](#), overnight [industrialization](#), [technological achievement](#), [education boom](#), exponential rise in [living standards](#), rapid [urbanization](#), [skyscraper boom](#), [modernization](#), successful hosting of the [1988 Summer Olympics](#) and [2002 FIFA World Cup](#), fast [democratization](#) and [globalization](#) that miraculously transformed the country from the ashes of the [Korean war](#) to a wealthy and highly [developed country](#) today with a globally influential [trillion dollar](#) economy and well-known [multinational](#) conglomerates such as [Samsung](#), [LG](#) and [Hyundai-Kia](#).^[1]

More specifically, this phrase refers to the economic growth of [Seoul](#), through which the [Han River](#) flows. The phrase comes from the "[Miracle on the Rhine](#)", which is used to describe the economic rebirth of [West Germany](#) after [World War II](#), resulting partially from the [Marshall Plan](#). The word "miracle" is used to describe the growth of postwar South Korea into the world's

[13th largest](#) economy and a role model for many developing countries,^[2] something considered to be impossible by many at the time. Seoul's [infrastructure](#) was destroyed by the [Korean War](#) and millions lived in [poverty](#) at the time, with thousands of [unemployed](#) people struggling to fulfill basic needs. In less than four decades, this "hopeless" city was completely transformed into a world leading [global city](#), a centre of [business](#) and [commerce](#) in Asia and a highly developed [world city](#) and economic hub, having among the most advanced technological infrastructure in the world. It is considered by many Koreans as a symbol of national pride and "can-do" spirit

http://en.wikipedia.org/wiki/Miracle_on_the_Han_River

Singapore has been called an economic miracle because of how much it has achieved in a short span of time, and in spite of its lack of natural resources.

In the post-independence 1960s, all that the island possessed was a strategic entrepôt location, a hardworking population and visionary leadership. It has since built up its foreign reserves that total S\$251,452.1 million (Monetary Authority of Singapore, May 2009), and generated a money supply of S\$84,579.2 million. Its total GDP in 2008 was S\$244 billion, contributed mainly by the services sector.

Singapore's core industries lie in electronics, chemicals, financial services, oil drilling equipment, petroleum refining, rubber processing and products, processed food and beverages, ship repair, offshore platform construction, life sciences, and entrepôt trade.

Its major trading partners are Malaysia, United States, Japan, Hong Kong, China, Taiwan, People's Republic of China, Thailand, Republic of Korea, Federal Republic of Germany, Philippines, Europe and Indonesia.

Singapore's pro-enterprise environment makes it one of the easiest countries to set up a business in, while property, business and income tax rates remain competitively low.

Singapore's free-market economy and political stability, together with a modern infrastructure, business transparency and favourable tax conditions, make it attractive to both investors as well as international companies wanting to set up a regional base in Asia.

Source: [Enterprise One](#), [Singapore Department of Statistics](#), The World Factbook

Pioneering role of Bell Labs

Bell Labs has been at the forefront of technology since 1925. Here are ten Bell Labs innovations that changed the world.

Data Networking

Since the transmission of the first facsimile in 1925, Bell Labs has explored ways to use networks to deliver more than just voice traffic. In the late 1940s, researchers demonstrated the

first long-distance remote operation of a computer by connecting a teletypewriter in New Hampshire with a computer in New York. Throughout the '80s and '90s, Bell Labs worked to increase modem speeds and pioneered the first trial of Digital Subscriber Line (DSL) technology. Today, DSL is becoming a popular way to transform regular copper phone lines into high-speed data connections, giving consumers faster access to the Internet.

The Transistor

Developed in 1947, as a replacement for bulky and inefficient vacuum tubes and mechanical relays, the transistor revolutionized the entire electronics world. The transistor sparked a new era of modern technical accomplishments from manned space flight and computers to portable radios and stereos. Today, billions of transistors are manufactured weekly.

Cellular Telephone Technology

In a paper in 1947 Bell Labs was the first to propose a cellular network. The primary innovation was the development of a network of small overlapping cell sites supported by a call switching infrastructure that tracks users as they moved through a network and pass their call from one site to another without dropping the connection. Bell Labs installed the first commercial cellular network in Chicago in the 1970s. Since then Bell Labs has continued to innovate in the wireless area, recently creating digital cellular telephone technology offering better sound quality, greater channel capacity, and lower cost.

Solar Cells

While there were theories and activities to harness the sun's energy dating back to the 1800s, Bell Labs, in 1954, was the first to actually build a device that used the sun's power to create practical amount of electricity.

Laser

The invention of the laser, which stands for "Light Amplification by Stimulated Emission of Radiation," can be dated to 1958 with the publication of a scientific paper by Bell Labs researchers. Lasers launched a new scientific field and opened the door to a multibillion-dollar industry that includes applications in medicine, communications, and consumer electronics.

Digital Transmission and Switching

In 1962, Bell Labs developed the first digitally multiplexed transmission of voice signals. This innovation not only created a more economical, robust and flexible network design for voice traffic, but also laid the groundwork for today's advanced network services such as 911, 800-numbers, call-waiting and caller-ID. In addition, digital networking was the foundation for the convergence of computing and communications.

Communications Satellites

Bell Labs was the pioneer in communications satellites. In 1962 it built and successfully launched the first orbiting communications satellite (Telstar I). Telstar was unique in that it had the ability to receive a signal, amplify it, and then transmitted it back to elsewhere on earth . . . which is, after all, the core of what a communications satellite does. This technology allowed telephones calls to be bounced from coast to coast and around the world. The satellite was powered by Bell Labs solar cells and transistors – two other Bell Labs pioneering inventions.

Touch-Tone Telephone

First introduced by Bell Labs in 1963, touch-tone replaced rotary dials. This ushered in a new generation of telephone services and capabilities including voice mail and telephone call center applications. In a recent survey of Americans, touch-tone dialing was named the most important business communications advance of the last century.

Unix Operating System and C Language

The Unix operating system and the C programming language, closely intertwined in both origin and impact, were created at Bell Labs between 1969 and 1972. Unix made large-scale networking of diverse computing systems - and the Internet - practical. The C language brought an unprecedented combination of efficiency and expressiveness to programming. Both made computing more "portable." Today, Unix is the operating system of most large Internet servers, as well as business and university systems; C and its descendants are the most widely used programming languages in the world.

Digital Signal Processor (DSP)

Bell Labs built the first single-chip digital signal processor in 1979. The DSP is the engine of today's multimedia revolution. DSP technology is in multimedia PCs and in the modems that connect computers to the Internet. It's in wireless phones, answering machines, and voice-mail; it's in video games talking toys, DVD players and digital cameras. And DSP chips are at the heart of a growing number of systems that talk to you in synthesized speech and recognize your spoken responses.

http://www.alcatel-lucent.com/wps/portal/!ut/p/kcxml/04_Si9SPykssy0xPLMnMz0vM0Y_QjzKLd4w3MXMBSYGYRq6m-pEoYgbxjggRX4_83FT9IH1v_QD9gtzQiHJHR0UAaOmbyQ!!/delta/base64xml/L3dJdyEvd0ZNQUFzQUMvNEIVRS82X0FfNDZL

MIT as a driving force: the leader of leadership

At the core of leadership development and research at MIT Sloan is a pragmatic, research-based model of how successful leaders at every level actually work. The 4 Capabilities Leadership Framework (FCF) provides the framework for teaching leadership and for leadership practice in general. As leadership moves away from a "command and control" model to a more "cultivate and coordinate" model, the way that leadership is taught must change, too. Developed over a

four-year period by Professors [Deborah Ancona](#), [Tom Malone](#), and [Wanda Orlikowski](#), with Senior Lecturer [Peter Senge](#), and tested in diverse real world settings, the FCF is a powerful tool for understanding and integrating the four critical components of leadership. The FCF, as described in research on [Leadership in the Age of Uncertainty](#), defines these components as follows.

- **Sensemaking:** making sense of the world around us, coming to understand the context in which we are operating.
- **Relating:** developing key relationships within and across organizations.
- **Visioning:** creating a compelling picture of the future.
- **Inventing:** designing new ways of working together to realize the vision.

Moreover, the FCF seeks to help leaders discover their unique Change Signature – the leader's credo and characteristic way of creating change. Each leader's signature draws upon his or her values, skills, experience, tactics, and personality in order to build trust, respect, and authenticity.

<http://mitleadership.mit.edu/r-dlm.php>

The quiet e-leadership of RAND

RAND Mission: The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis. RAND focuses on the issues that matter most such as health, education, national security, international affairs, law and business, the environment, and more. With a research staff consisting of some of the world's preeminent minds, RAND has been expanding the boundaries of human knowledge for more than 60 years. As a nonpartisan organization, RAND is widely respected for operating independent of political and commercial pressures. Through our dedication to high-quality and objective research and analysis and with sophisticated analytical tools developed over many years, RAND engages clients to create knowledge, insight, information, options, and solutions that will be both effective and enduring.

▣ Learn more about [RAND Nobel Prize winners](#)

▣ Read more about the [history of RAND](#) published in *American Heritage Invention & Technology* (PDF)

▣ Read more about [writing and reading about RAND](#)

<http://www.rand.org/about/history/>

60 Ways RAND Has Made a Difference



RAND has helped to improve policy and decision- making in countless ways over the past 60 years. An interactive online book reflects on sixty of those notable contributions.

Conclusion: need for continuing education and eLearning

The International Institute of Strategic Research and Training is an think tank set for the purpose of assisting leaders, from the business sector to government sector, national and international to reflect on the needed skills and build these up as needed to become e-Leaders.

The IISRT concept is about making a difference in the lives of people, turning setbacks into opportunities, maximizing opportunities, ingeniously and generously. Here is key methodological guidance (source: www.strategicresearch.info)

Critical thinking is both an art and a science and has developed significantly in recent years; leaders , managers and scholars stand to benefit from the use of available tools ([The Foundation for Critical Thinking](#)) and they could also share their experience and help develop these tools further.

Lateral thinking: Another approach has also been highly used as a tool to find creative solutions to all kinds of problems, [find more](#)

[Lessons Learned](#) (a strategic methodology involves learning from experience; from mistakes so as not to repeat them and enhancing/improving good practices)

[Sources of Inspiration](#) (equal to sources of wisdom; often a citation can trigger thought and action)

Persistence: often complex tasks require persistence i.e. sustained effort; persistence may mean trying not just one way but several ways in order to get the needed results. A related concept is perseverance i.e. to keep on trying and not giving up. Worthwhile ventures always need persistence and perseverance.

"Early in his career (Sir Francis Bacon) claimed 'all knowledge as his province' and afterwards dedicated himself to a wholesale revaluation and re-structuring of traditional learning. To take the place of the established tradition (a miscellany of Scholasticism, humanism, and natural magic), he proposed an entirely new system based on empirical and inductive principles and the active development of new arts and inventions, a system whose ultimate goal would be

the production of practical knowledge for 'the use and benefit of men' and the relief of the human condition."
<http://www.iep.utm.edu/b/bacon.htm>

The key to making an idea stick: NEA Higher Education, Vol. 26, No. 2 Dec 2008, page 7, Under Best Practices: "in 'Made to Stick' (2007) Chip and Dan Heath demonstrate that the key to making an idea stick - i.e. understood, remembered and having a lasting impact - is to keep it simple by 'finding the core of the idea'".

Knowledge is crucial to human progress; here is a foundation that is making a big difference in society through its [knowledge center](#)

Art/Science of getting a large number of tasks done and/or to doing a large number of tasks: (1) manage time judiciously (2) multitask (3) delegate as possible (4) bring in needed help (5) work in team (6) leverage computer systems e.g. use calendaring, use project management software (7) avoid procrastination (8) enjoy the action (9) feel good at being constructive

[Priority setting](#) (a necessary part of any complex venture)

[The strategic approach](#): strategic planning leading to strategic action and result

The IISRT also attempts to help the leaders use the mix-scanning model (Amitai Etzioni) to know where efforts are needed and how to leverage situations.

www.strategicresearch.info

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