



MAKING INFORMATION TECHNOLOGY STRATEGIC

BY VICTORIA GRIFFITH

Technology is not neutral. At its best, it is an enabler that helps companies achieve their business goals — if they use it correctly.



CAN INFORMATION TECHNOLOGY be a leading driver of corporate growth? If it is embraced as an integral part of strategy, rather than shoved aside as a back-office function, it very well might.

Unleashing the true potential of information systems is one of the most daunting challenges facing senior managers in the Information Age. While an alarming number of executives seem to ignore the issue, a new prototype for the role of information technology (I.T.) in business is slowly emerging.

Jack Welch, the chief executive of the General Electric Company, caused something of a stir in management circles when he named information systems as a top priority in G.E.'s 1995 annual report.

Other companies are beginning to see the possibilities as well. The Italian clothing maker Benetton announced

in June that it would soon be managing its retail stores by computer: a central program would collect information from the point of sale to identify the hottest fashion items, then step up their production. Headquarters would also use the information to replenish inventory automatically, as the need arose at the stores. By employing technology in this way, Benetton is making it an integral part of its business plan.

"We are starting to see a new breed of manager that recognizes the importance of I.T.," said Charles V. Callahan, a vice president of Booz-Allen & Hamilton who specializes in the restructuring of I.T. activities at large corporations. "But most still don't."

To get more managers on board, and thus insure that I.T. becomes part of more business plans, it is essential to alter the way in which information technology is viewed within the orga-

nization. The key is for I.T. to be seen as the new engine for growth, and not as a frustrating cost center that few executives understand.

Putting an emphasis on cost places an albatross around the neck of technology departments. To be sure, fretting over cost is understandable. After all, I.T. projects originally came to the attention of many senior executives because of their steep price tags, which can reach \$100 million or more at many companies.

Yet when I.T. is placed in the role of potential profit-maker, managers begin to view it in a far more positive way. One way to do this is by clearly tagging technology as a business proposition. "Business ownership" of technology projects is an increasingly common term. It means that an operational department of a company has adopted the initiative; the unit



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will reap the profits as well as bear the costs of development.

If done well, this practice means that only the most promising I.T. projects are likely to move ahead. It also means that technology shifts from being a resource drain to a source of new business.

At Wisconsin Power and Light, for instance, business units compete to “own” information systems. Division heads at the utility company are always on the lookout for technologies that promise growth and, as a result, systems developers receive strong support from upper management. In return, the systems people are expected to deliver products that respond to a specific business plan.

“In the past, we took the I.T. side for granted,” said Linda Taplin-Canto, director of customer services for Wisconsin Power and a major I.T. sponsor at the company. “We didn’t pay for it and didn’t think it was our concern. Now, it’s an integral part of what we do.”

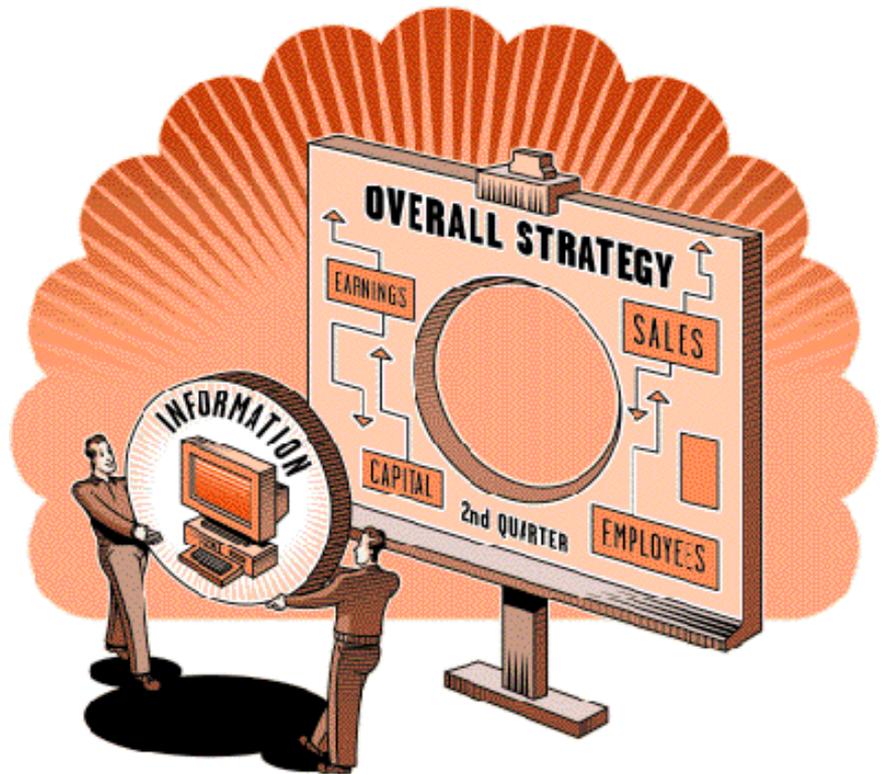
This year, Ms. Taplin-Canto’s division adopted a project that will merge all customer utility bills from the company—for gas, water and electricity—into a single bill. The division will cover the cost of the initiative, and will also receive credit for any new business garnered as a result.

Most executives have little chance of forging an alliance with technology experts because they simply don’t speak the same language. The technology communications gap is invidious; it often condemns I.T. functions to a position as service provider.

Bridging the chasm between the

technology and operations functions is not easy. John Donovan, a professor at the Massachusetts Institute of Technology’s Sloan School of Management, has taken on that task. He is a self-styled technology crusader, fighting to

The relationship between the two sides is often tense. As chief executives struggle to get their E-mail to work, the I.T. heads — let’s use their most common title, chief information officers (C.I.O.’s) — bombard them



make sure the two sides know how to speak each other’s tongues.

Mr. Donovan fancies himself in the role of corporate marriage counselor. Believing that technology is a vastly undertapped resource in the business world, he runs seminars out of his office in Cambridge, Mass., to teach I.T. and operations managers to communicate. The trick, he said, is convincing the chief executive of the importance of I.T. and getting the I.T. expert to drop the jargon and focus on business strategy.

with opaque talk of bytes and RAM. It is not surprising that some top executives simply stop listening.

Mr. Donovan likens C.E.O.-C.I.O. interaction to a Mars and Venus relationship. “It’s like that book about how men and women speak different languages,” he said. “C.I.O.’s and C.E.O.’s simply talk past each other.”

Mr. Donovan sprinkles his speech with hyperbole to press home his points. “Changes in technology are driving fundamental galactic changes

in business structures around the world,” he said. “Business strategy has to change with it. To do that, the C.I.O. needs to become a dispenser of hope, not of caution. The focus should be not on how much new technology should cost, but on how much revenue it will bring in.”

Yet looking at I.T. as a driver of growth, rather than as a support function, begs an important question: if I.T. is going to be brought into the fold, who is going to run the show? Should it be a technology expert or a business person?

To Mr. Callahan of Booz-Allen, the answer is clear: it should be someone on the business side. “If it’s strictly an I.T. guy leading the way, it probably won’t work,” he said. “You can partner with I.T. people, but they shouldn’t be the dominant players.”

In companies that are truly em-

bracing I.T. as a part of strategy, the lines between the technological and business sides are becoming increasingly fuzzy. In 1996, G.E. named Gary Reiner — formerly in charge of corporate business development — as its C.I.O. The appointment was a radical break from standard practice, since most C.I.O.’s still come up through the engineering ranks.

While it is essential to see technology from a business standpoint, writing I.T. people completely out of the picture doesn’t make sense. Someone has to decide the fine points: which browser to use, what kind of software is needed and the like. I.T. people are the ones who understand what’s possible and what isn’t from a technological standpoint; they help executives distinguish between pipe dreams and achievable goals. The fine points can be important: managers might have avoided the huge

costs of converting information systems to read the year 2000 if engineers had raised their hands decades ago to signal the problem.

The need for expertise on both sides of the equation has led some corporations to experiment with personnel blends to achieve a more integrated strategy. Teams made up of both business and I.T. employees are increasingly popular. Reebok, the giant sportswear manufacturer, uses such teams for all major technology initiatives. At Wisconsin Power, major I.T. decisions are made through a governance “committee” composed of a mix of employees from the operations and technology sides of the business.

The example of Unifi, a small but fast-growing service company in Lowell, Mass., shows how a more team-based, organizational approach to I.T. can work.

Doug Ranalli, the chief executive of Unifi, understands that the Internet means fundamental changes in the way his company does business. Unifi guarantees the delivery of faxes in much the same way that Federal Express guarantees the delivery of packages. Unifi’s customers pay for the comfort of knowing that their messages will arrive at the right destinations. Most of the company’s business is in international faxes — a form of communication that can be complicated by differing time zones, languages and receipt mechanisms (the destination point may be a computer, a voice/fax machine or a dedicated fax, for instance).

Mr. Ranalli has been asking himself questions. Will faxes become obsolete once everyone is hooked up to

SEVEN WAYS TO INTEGRATE I.T. WITH BUSINESS STRATEGY

- > Draw I.T. leaders into the company’s elite decision-making circle.
- > Improve communications between C.I.O.’s and C.E.O.’s. C.I.O.’s should drop the jargon and talk about revenue-producing initiatives. C.E.O.’s must listen.
- > Consider appointing an I.T. head with a business background. Someone with engineering knowledge alone may not be able to think strategically.
- > Adopt a team approach to I.T. projects. Teams should consist largely of members from the business side.
- > Get the entire corporation behind the strategy. This can be done through demonstrations, videos and other internal public relations techniques.
- > Present I.T. as a corporate priority.
- > Measure I.T. success by profits, not cost. This requires viewing technology as revenue driver, rather than cost center.



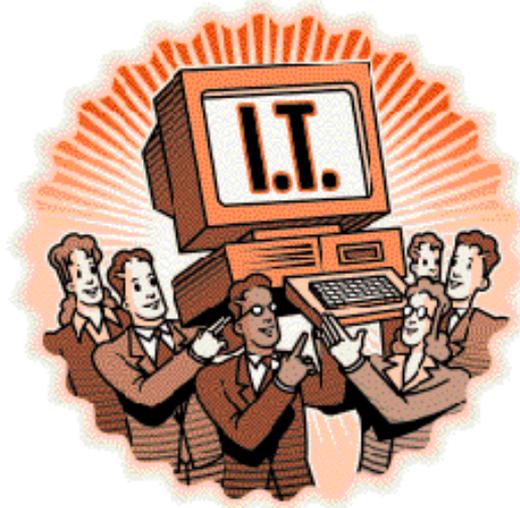
cyberspace? How will the Internet change the way Unifi communicates with its customers?

"I need to have an I.T. person by my side to help me set out a strategy," he explained. "I started out with someone with a pure engineering background, but it wasn't getting me where I needed to go."

Enter Bob Huebner, now Unifi's I.T. guru. Mr. Huebner has an unusual background: along with years of computer experience, he has an M.B.A. from Penn State under his belt. He also has, by his own reckoning, a love of tackling complex technological problems. Earlier this year, Mr. Huebner approached Mr. Ranalli with an idea: why not allow Unifi's customers to place service orders and track their faxes on the Internet, just as FedEx does with its packages?

Putting a major Internet presence together would require a company-wide effort and approval from the board of directors. In the past, said Mr. Huebner, the C.I.O. would probably have produced a memorandum, explaining the project's goals and likely cost. Mr. Huebner came up with an alternative plan: prepare a model of the new technology so that non-I.T. people could get a hands-on feeling for what the Internet presence would do for the company.

If developed solely by I.T. personnel, Mr. Huebner feared, the model would fail to meet users' needs. So he decided to form a 10-person team, con-



sisting mainly of non-I.T. people, to come up with a prototype of the technology within a three-week period. The cost of the effort was set at \$120,000. Yet as Mr. Huebner began to canvass for team members, his overtures met with little interest.

"No one wanted to drop their work for a few weeks to work on some project they didn't consider their responsibility," he said.

Mr. Ranalli stepped in. Business units were asked to identify likely team members, who were forced to "volunteer."

"Morale was pretty low at our first meeting," Mr. Huebner said. "Most of the people in the room didn't want to be there." That changed as time went on. "When they realized this was something that could change the company, they began to enjoy it," Mr. Huebner added.

Within three weeks, a model of the new program was ready. Almost the entire company, as well as three members of the board, showed up for the presentation.

"We were all just bowled over," Mr. Ranalli said. "Having something there that people could see and touch made all the difference."

The project was enthusiastically approved, and Unifi said it would be on the Net by the end of the year.

Having something solid to show non-I.T. personnel at the company can be an important sales tool. It doesn't have to be in the form of a systems model. At

Reebok, for instance, the technology group made a video, which was viewed throughout the company, to explain what I.T. experts were trying to do for business and how it would work.

"We wanted to get everyone behind us," said Peter Burrows, Reebok's C.I.O.

THE IMPORTANCE OF INTRANETS

There now are numerous ways to use I.T. — and in particular the Internet — to help the business process.

Mr. Donovan of M.I.T. loves to tell the story of how he turned a small Czech glassmaker into an international company overnight.

On a visit to Prague last year, Mr. Donovan met the owner of a factory that makes very fine stemware. The professor asked the man to describe his dream, and he replied that he would like to sell to the Japanese, who have a real appreciation for fine glass products. "But there's no way my dream will be realized," he added. "We are just a small company and can't afford to send someone to Japan."

Mr. Donovan said he and his assistants labored all night to put together a Web page for the factory. They posted the information in Japanese, and included an easy way to place electronic orders.

"I was at the airport the next day when the man came running up to me," Mr. Donovan recalled. "He told me he had three orders from Japan. His dream had come true."

While it makes a nice yarn, the tale of the Czech glassware maker may be missing the point. A handful of overseas orders is unlikely to change a company's future. Though an Internet presence may be essential for businesses like Unifi, which have a primarily corporate customer base, the World Wide Web cannot yet be used to access the mass market.

Yet even without the presence of a big consumer market, the Internet can still have a profound effect on corporate strategy. Its immediate potential may lie more in its impact on communication *within*, rather than outside of, the company. The surging popularity of "intranets" — secured Internet lines that carry internal corporate communications — implies a fascinating flip side to the cyberspace phenomenon: the Internet is not only altering the way companies manage I.T.; I.T. is also having an impact on the way companies are managed.

The Internet is capable of putting all corporate participants — headquarters, branch offices, suppliers



and distributors, as well as some consumers — on the same wavelength. For very little cost — E-mailing capability can run less than \$20 a month — a store in the United States can contact a factory in Indonesia.

"E-mailing is an amazing thing," said Michael Lezenski, the chief technology officer of BankBoston, the entity created by this year's merger of the Bank of Boston and BayBank. "It doesn't matter which kind of computer or what kind of word-processing program I'm using. I can communicate with anyone else on the Internet. It is the ultimate standardization."

By opening up the lines of communication, intranets facilitate the management of another 1990's phenomenon: the virtual corporation. As the distinctions fade between the corporation and its support structure — which may include distributors, suppliers, accountants and shareholders — it is sometimes difficult to say exactly where an organization begins and ends. Intranets can dramatically

simplify the running of the virtual corporation.

Take, for instance, Harley-Davidson Inc., the motorcycle manufacturer. The company has just set up an intranet operation that is a key part of its business plan. The new system allows Harley dealers all over the world to access the company's customer data base.

"In the past, we would have had to build special terminals for everyone —

and we have almost 1,000 dealers worldwide," said Dave Storm, vice president of planning and information services for Harley. "That would have cost a small fortune. With an intranet, we hooked everyone up for a minimal price."

Under the new system, a Harley dealer accesses the data base at the head office every time a purchase is made. "Say a customer is buying a helmet," Mr. Storm explained. "The dealer sees on the computer that the guy bought chaps for his wife last week. Maybe it's a good time to ask if his wife needs a new helmet, too."

The intranet has become, for Harley, a strategic tool to boost sales. (For more on Harley's success in pushing its brand, see article on page 31.)

Harley plans, over the next year, to begin using the intranet as an inventory management tool for its dealers. Employing elaborate forecasting programs and the sales data from the dealerships, the company will, in the style of Benetton, automatically replenish inventory items at the

point of sale. In essence, dealerships would be largely managed by corporate headquarters, although officially they would remain separate entities.

“This sort of thing can be a great management tool by allowing the

company to take the sharing of best business practices to the next level,” said Mr. Callahan of Booz-Allen. “You don’t have to reinvent the wheel all the time.”

The standardization of the Inter-

net has another important implication: it may facilitate mergers and acquisitions by making corporate systems instantly compatible. This is a particularly important consideration in consolidating industries. American

WHY INFORMATION TECHNOLOGY OFTEN COMES UP SHORT

Thanks to the arrival of the Internet and other offspring of the computer revolution, technology experts have achieved an elevated status in corporations over the last decade. They have gone from being the geeks in the basement with taped-up glasses to well-paid corporate officers.

Yet despite being aware that tremendous change is afoot, most senior managers are continuing to turn their backs on I.T. The reasons are complex.

Many chief executives are suspicious of I.T. because they haven’t a clue about how it works. Managers who never turned on a computer before — delegating word-processing and data-entry responsibilities to low-tier workers — are now expected to answer E-mail from their airplane seats. Many view all the new technology as an annoyance that they wish would simply go away.

Another obstacle is the painful encounters many chief executives

have had with technology departments in the past.

The relationship between I.T. personnel and top management “has been soured by projects that have gone wrong,” said Charles V. Callahan, a vice president of Booz-Allen & Hamilton who specializes in I.T. issues. “I.T. departments have too often pursued the technology du jour, something that ends up costing millions and is hopelessly out of date before the project even gets finished.”

The CNA Financial Corporation, a leading insurance company, had such a bad experience with aborted technology projects, for instance, that it sent nearly all of its I.T. work to an outside specialist.

“It’s very disheartening to see millions of dollars wasted on worthless projects that had to be dropped halfway through,” said Maggie Kirkham, who organized the outsourcing.

Yet while outsourcing routine I.T. functions may make sense,

chief executives can’t afford to turn their backs on strategically oriented technology.

The value senior executives place on I.T. may be measured by assessing how often information systems issues are considered in major decisions. While many companies pay lip service to the importance of technology, those responsible for I.T. are often shut out of elite strategy-shaping sessions.

Take the case of BankBoston, the entity created by this year’s merger of the Bank of Boston with BayBank. The I.T. portion of the merger reputedly ended up costing a hefty \$100 million, the price tag for ironing out differences in the systems used by the two banks.

Yet BankBoston’s chief technology officer, Michael Lezenski, was not involved in the agreement until it was a done deal. “No one consulted me,” he said. “It was a decision made by just a few top guys at the company.” 

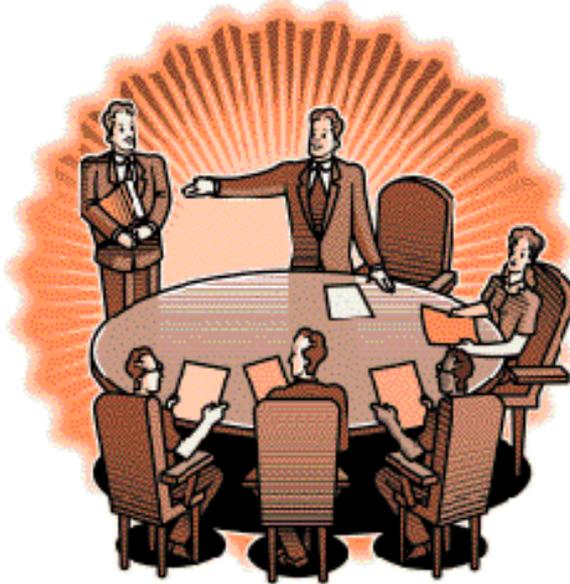
Airlines said one reason it spun off its Sabre reservation system was to ease future alliances with other carriers. Because all travel agents — and passengers now, through the Internet — use the same program, the cost of integrating I.T. systems in the future may be reduced.

Reebok is organizing its I.T. strategy to facilitate future partnerships. The company has formed a consortium with other apparel and footwear companies — including the V.F. Corporation, which makes Gloria Vanderbilt jeans — to come up with a software program that could serve as an industry standard. The goal is to exchange complex design images and information over the Internet.

“This can’t be done now, because the apparel industry has special considerations, like size changes, that make sending designs complicated,” said Mr. Burrows of Reebok. “We’re hoping to create a standard with an eye to future alliances.”

While some companies are beginning to align their strategy more closely with I.T., most have yet to recognize technology’s growing importance as a management tool. The closing window of opportunity of I.T. advantage is a factor behind the skepticism.

Amazon.com, the Internet book-seller, had a market niche all to itself for many months until Barnes & Noble decided to make a big on-line commitment. Now, Amazon.com has to



cope with a formidable competitor. Similarly, Federal Express once stood out as the only courier group with Internet tracking capability; now U.P.S. provides the same service.

The faster pace of technology doesn’t mean companies would be wise to bail out of the race, though. For one thing, becoming a technology pioneer can be a tremendous marketing tool. FedEx gleaned a lot of free publicity from being the first on the Net, and Amazon.com got a chance to grab a clientele it probably would never have accessed had it been second in line with the service.

Moreover, companies that fail to keep up with the times could soon find themselves out of the game altogether.

“I think of it as a necessary but insufficient factor in success,” said Ms. Taplin-Canto of Wisconsin Power. “While improved I.T. may not give you any long-lasting competitive ad-

vantage, inferior I.T. will probably put you out of business.”

On its own, I.T. has no legs. It can, in fact, serve to magnify a company’s shortcomings.

“FedEx’s Internet service has enhanced its image in my mind, but U.P.S.’s presence has worsened its image, because I can see my package sitting around at some warehouse for days before it gets sent,” said Mr. Huebner of Unifi.

The best way to leverage I.T. is by integrating it into every aspect of the business. This is not easy. It means improved communication between technology experts and managers. It means changing the way corporations are organized — breaking down the old I.T. department and pulling it into the company’s business operations. It means seeing technology as a source of profit rather than as a cost center. And it means rethinking old relationships with customers and members of the virtual corporation — the suppliers, distributors and other groups that companies depend upon for success.

Some companies are beginning to tackle these challenges, and those that succeed will probably end up on top.

“I.T. on its own cannot change the course of a company,” Mr. Callahan said. “But its intimate integration into every aspect of corporate strategy can.” 

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