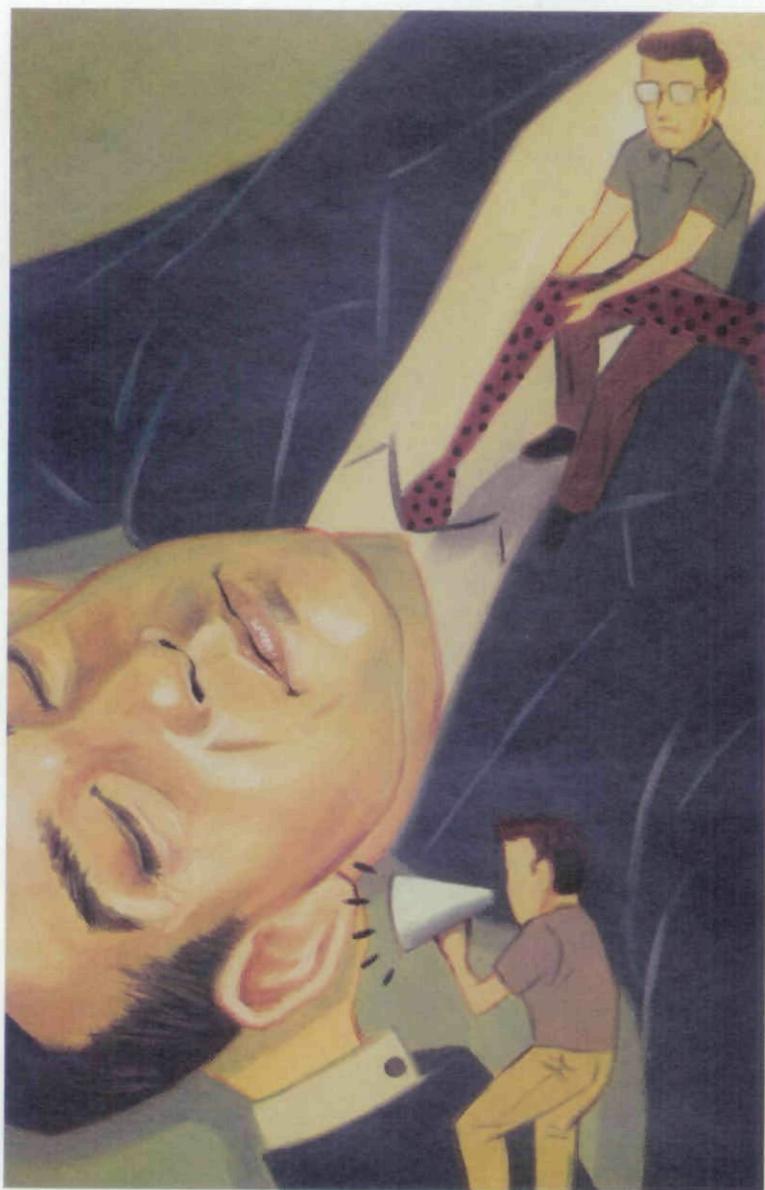


Waking Up IBM

*How a Gang of
Unlikely Rebels Transformed Big Blue*



Six years ago, IBM was a has-been. Today, it's an e-business powerhouse. It didn't turn around by imposing change from the top. It let ideas, initiatives, and enthusiasm bubble up from below. Maybe your company should do the same.

BY GARY HAMEL

DO YOU REMEMBER WHEN IBM was a case study in complacency? Insulated from the real world by layer upon layer of dutiful managers and obsequious staff, IBM's executives were too busy fighting their endless turf battles to notice that the company's once unassailable leadership position was crumbling around them. The company that held the top spot on *Fortune's* list of most admired corporations for four years running in the mid-1980s was in dire need of saving by the early 1990s. Fujitsu, Digital Equipment, and Compaq were hammering down hardware margins. EDS and Andersen Consulting were stealing the hearts of CIOs. Intel and Microsoft were running

away with PC profits. Customers were bemoaning the company's arrogance. By the end of 1994, Lou Gerstner's first full year as CEO, the company had racked up \$15 billion in cumulative losses over the previous three years, and its market cap had plummeted from a high of \$105 billion to \$32 billion. Armchair consultants were nearly unanimous in their view: Big Blue should be broken up.

Despite Gerstner's early assertion that IBM didn't need a strategy (the last thing he wanted was to start another corporate-wide talk fest), IBM was rudderless in gale force winds. Yet over the next six years, the company transformed itself from a be-

and Microsoft originally missed? Much of the credit goes to a small band of activists who built a bonfire under IBM's rather broad behind. This is their story.

Missing an Olympic Opportunity

The first match was struck in 1994 in the backwoods of IBM's empire, on a hilltop in Ithaca, New York, by a typical self-absorbed programmer. David Grossman was a midlevel IBMer stationed at Cornell University's Theory Center, a nondescript building hidden away in the southeast corner of the engineering quad. Using a supercomputer connected to an early version of the Internet,

that the data was being provided by Sun. And IBM didn't have a clue as to what was happening on the open Internet. It bothered me."

The fact that IBM's muckety-mucks were clueless about the Web wasn't exactly news to Grossman. When he had landed at IBM a few years earlier, everyone was still using mainframe terminals. "I was shocked," he remembers. "I came from a progressive computing environment and was telling people at IBM that there was this thing called UNIX—there was an Internet. No one knew what I was talking about."

This time, though, he felt embarrassed for IBM, and he was irked. He logged on to the corporate directory and looked up the name of the senior executive in charge of all IBM marketing, Abby Kohnstamm. Then he sent her a message informing her that IBM's Olympic feed was being ripped off. A few days later, one of her

minions working in Lillehammer called Grossman back. At the end of a frustrating conversation, Grossman had the feeling that one of them was living on another planet. Ever persistent, Grossman tried to send some screen shots from Sun's Web site to IBM's marketing staff in Lillehammer, but IBM's internal e-mail system couldn't cope with the Web software. That didn't stop IBM's diligent legal department from sending Sun a cease-and-desist letter, which succeeded in shutting down the site.

Most frontline employees would have left it at that. But Grossman felt IBM was missing a bigger point: Sun was about to eat Big Blue's lunch. After everyone had come back from the Olympics, he drove down to IBM's headquarters, four hours away in Armonk, New York, to personally show Kohnstamm the Internet.

A Virtual Team Takes Shape

When he arrived, Grossman walked in unattended, a UNIX workstation in his arms. Wearing a programmer's uniform of khakis and an open-necked shirt, he wound his way up to the third floor—the sanctum sanctorum of the largest computer com-

How did a company that had lagged behind every computer trend since the mainframe catch the Internet wave—a wave that even Bill Gates and Microsoft originally missed?

sieged box maker to a dominant service provider. Its Global Services unit, once a backwater, grew into a \$30 billion business with more than 135,000 employees, and corporations flocked to IBM consultants for help in capitalizing on the Internet. By the end of 1998, IBM had completed 18,000 e-business consulting engagements, and about a quarter of its \$82 billion in revenues was Net related.

How did a company that had lagged behind every computer trend since the mainframe catch the Internet wave—a wave that even Bill Gates

Grossman was one of the first people in the world to download the Mosaic browser and experience the graphical world of the Web. Grossman's fecund imagination quickly conjured up a wealth of interesting applications for the nascent technology. But it was an event in February, as snow dusted the ground around the Theory Center, that hardened his determination to help get IBM out in front of what he knew would at the very least be the Next Big Thing—and might very well be the Ultimate Big Thing.

The Winter Olympics had just started in Lillehammer, Norway, and IBM was its official technology sponsor, responsible for collecting and displaying all the results. Watching the games at home, Grossman saw the IBM logo on the bottom of his TV screen and sat through the feel-good ads touting IBM's contribution to the event. But when he sat in front of his UNIX workstation and surfed the Web, he got a totally different picture. A rogue Olympics Web site, run by Sun Microsystems, was taking IBM's raw data feed and presenting it under the Sun banner. "If I didn't know any better," says Grossman, "I would have thought

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pany in the world. Borrowing a T1 line from someone who had been working on a video project, he strung it down the hall to a storage closet where he plugged it into the back of his workstation. He was now ready for his demo—a tour of some early Web sites, including one for the Rolling Stones. As sober-suited IBM executives scurried through their rounds, Mick Jagger could be heard wailing from the closet.

In addition to Kohnstamm, two others were present at that first demo. One was Irving Wladawsky-Berger, head of the supercomputer division where Grossman worked. The other was John Patrick, who sat on a strategy task force with Wladawsky-Berger. Patrick, a career IBMer and lifelong gadget freak, had been head of marketing for the hugely successful ThinkPad laptop computer and was working in corporate strategy, scouting for his next big project. Within minutes, Grossman had his full attention. “When I saw the Web for the first time,” says Patrick, “all the bells and whistles went off. Its ability to include colorful, interesting graphics and to link to audio and video content blew my mind.”

Not everyone saw what Patrick saw in that primitive first browser. “Two people can see the same thing but have a very different understanding of the implications,” he recalls. “A lot of people [would say], ‘What’s the big deal about the Web?’ But I could see that people would do their banking here and get access to all kinds of information. I had been using on-line systems like CompuServe for a long time. For people who weren’t already using on-line systems, it was harder for them to see.”

Their passions fueled by the Web’s limitless possibilities, Patrick and Grossman became IBM’s Internet tag team, with Patrick doing the business translation for Grossman and Grossman doing the technology translation for Patrick. Patrick acted as a sponsor and a resource broker. Grossman developed intimate links with the Net-heads in IBM’s far-flung development community. “The hardest part for people on the street like me,” says Grossman, “was how to get senior-level atten-

tion within IBM.” Patrick became his mentor and his go-between.

After seeing Grossman’s demo, Patrick hired him, and they soon hooked up with another Internet activist within IBM, David Singer. Singer was a researcher in Alameda, California, who had written one of the first Gopher programs, which fetched information off the Net. Grossman and Singer started building a primitive corporate intranet, and Patrick published a nine-page manifesto extolling the Web. Entitled “Get Connected,” the manifesto outlined six ways IBM could leverage the Web:

1. Replace paper communications with e-mail.
2. Give every employee an e-mail address.
3. Make top executives available to customers and investors on-line.
4. Build a home page to better communicate with customers.
5. Print a Web address on everything, and put all marketing on-line.
6. Use the home page for e-commerce.

The Get Connected paper, distributed informally by e-mail, found a ready audience among IBM’s unheralded Internet aficionados. The next step was to set up an on-line news group of the sort that allowed IBM’s underground hackers to trade technical tidbits. “Very few people higher up even knew this stuff existed,” says Grossman. Within months, more than 300 enthusiasts would join the virtual Get Connected team. Like dissidents using a purloined duplicator in the old Soviet Union, Patrick and Grossman would use the Web to build a community of Web fans that would ultimately transform IBM.

As Patrick’s group began to blossom, some argued that he should “go corporate” and turn the nascent Web initiative into an officially sanctioned project. Patrick’s boss, senior VP for strategy and development

Jim Canavino, disagreed. “You know, we could set up some sort of department and give you a title,” Canavino remarked to Patrick, “but I think that would be a bad idea. Try to keep this grassroots thing going as long as possible.” Patrick needed to infiltrate IBM rather than manage some splendidly isolated project team. It would be easy for others at IBM to ignore a dinky department, but they couldn’t stand in the way of a groundswell.

Still, Canavino wasn’t above using his role as head of strategy to give the fledgling initiative a push. To avoid the danger of going quickly from having no IBM Web site to having dozens of uncoordinated ones, Canavino decreed that nobody could build a site without Patrick’s approval. Though few in IBM had any inkling of what the Internet would become, Patrick had become IBM’s semi-official Internet czar.

“Where’s the Buy Button?”

Patrick’s volunteer army was a widely dispersed group of Net addicts, many of whom had no idea that others shared their passion. “What John ended up providing,” says Grossman, “was the ability to articulate and summarize what everyone was doing and to open a lot

of doors.” In turn, the Net-heads introduced Patrick to the culture of the Internet, with its egalitarian ideals and trial-by-fire approach to developing new technologies. When the Get Connected conspirators gathered for their first physical meeting, remem-

bers Grossman, “the question on everybody’s lips was, How do we wake this company up?”

Patrick gathered a small group of his Get Connected renegades, including Grossman, at his vacation house, set deep in the woods of western Pennsylvania. There they cobbled together a mock-up of an IBM home page. The next step was to get through to Gerstner’s personal

As sober-suited IBM executives scurried through their rounds, Mick Jagger could be heard wailing from the closet.

How to Start an Insurrection

Is it clear to you that your company needs to be shaken up? Then it's time you became a revolutionary. Here are seven steps for organizing a corporate insurrection.

- 1 Establish a point of view.** In a world of people who stand for nothing more than more of the same, a sharply articulated POV is your greatest asset. It's a sword that lets you slay the dragons of precedent. It's a rudder that lets you steer a steady course when others are blown about by fad and whim. And it's a beacon that attracts those who are looking for something worthy of their allegiance. A powerful POV is credible, coherent, compelling, and commercial. To be credible, it must be founded on unimpeachable data. To be coherent, it must be logical, laying out a bulletproof argument. To be compelling, it must speak to people's emotions, telling them why your cause will make a difference in the world. To be commercial, it must have a clear link to the bottom line.
- 2 Write a manifesto.** It's not enough to have an ideology; you have to be able to pass it on, to infect others with your ideas. Like Thomas Paine, whose *Common Sense* became the inspiration for the American Revolution, you have to write a manifesto. It doesn't have to be long, but it must capture people's imaginations. It must paint a picture of what is and what is coming that causes discomfort. And it must provide a vision of what could be that inspires hope.
- 3 Create a coalition.** You can't change the direction of your company all by yourself. You need to build a coalition, a group of colleagues who share your vision and passion. It's easy to dismiss corporate rebels when they are fragmented and isolated. But when they present themselves as a coordinated group, speaking in a single voice, they cannot be ignored. And remember, as you struggle to attract recruits to your cause, you will have an advantage over top management. Your army will be made up of volunteers; theirs will be composed of conscripts. Conscripts fight to stay alive; volunteers fight to win.
- 4 Pick your targets.** Sooner or later, a manifesto has to become a mandate if it's going to make a difference. The movement has to get the blessing of the suits. That's why activists always identify and target a potential champion—someone or a group of someones that can yank the real levers of power. Ultimately, the support of senior management is the object of your crusade. Make an effort to understand them—the pressures they face, the objectives they have to fulfill. Find some who are searching for help and ideas, and go after them. If necessary, bend your ideals a bit to fit their goals. And don't forget that leaders are often more receptive to new thinking than are the minions who serve them.
- 5 Co-opt and neutralize.** Some activists further their causes by confronting and embarrassing their adversaries. Such tactics may work in the public sphere, but in a business setting they'll probably get you fired. You need to disarm and co-opt, not demean and humiliate. To win over IBM's feudal lords, John Patrick constructed a set of win-win propositions for them: Lend me some talent, and I'll build a showcase for your products. Let me borrow a few of your top people, and I'll send them back with prototypes of cool new products. Reciprocity wins converts; ranting leaves you isolated and powerless.
- 6 Find a translator.** Imagine how a buttoned-down dad looks at a daughter who comes home with green hair and an eyebrow ring. That's the way top management is likely to view you and your conspirators. And that's why you need a translator, someone who can build a bridge between you and the people with the power. At IBM, Patrick was a translator for Dave Grossman. He helped the top brass understand the connection between the apparent chaos of the Web and the disciplined world of large-scale corporate computing. Senior staffers and newly appointed executives are often good translator candidates—they're usually hungry for an agenda to call their own.
- 7 Win small, win early, win often.** None of your organizing efforts is worth anything if you can't demonstrate that your ideas actually work. You need results. Start small. Unless you harbor kamikaze instincts, search for demonstration projects that won't sink you or your cause if they should fail—for some of them will fail. You may have to put together a string of successful projects before top management starts throwing money your way. You have to help your company feel its way toward revolutionary opportunities, step by step. And as your record of wins gets longer, you'll find it much easier to make the transition from an isolated initiative to an integral part of the business. Not only will you have won the battles, you will have won the war.

technology adviser, who agreed to make him available for a demo of the prospective IBM corporate Web site. When Gerstner saw the mock-up, his first question was, "Where's the buy button?" Gerstner wasn't a quick study—he was an instant study. But Grossman and Patrick knew that an intrigued CEO wasn't enough. There were thousands of others who still needed to get the Internet religion.

Their first chance for a mass conversion came at a meeting of IBM's top 300 officers on May 11, 1994. Having schemed to get himself on the agenda, Patrick drove his point home hard. He started by showing IBM's top brass some other sites that were already up and running, including ones done by Hewlett-Packard; Sun Microsystems; the Red Sage restaurant in Washington, D.C.; and Grossman's six-year-old son Andrew. The point was clear: on the Web, everyone could have a virtual presence.

Patrick ended the demo by saying, "Oh, by the way, IBM is going to have a home page too, and this is what it will look like." He showed the startled executives a mock-up of www.ibm.com, complete with a 36.2-second video clip of Gerstner saying, "My name is Lou Gerstner. Welcome to IBM."

Still, many IBM old-timers remained skeptical. Recalls Patrick: "A lot of people were saying, 'How do you make money at this?' I said, 'I have no idea. All I know is that this is the most powerful, important form of communication both inside and outside the company that has ever existed.'"

Shortly after the May meeting, Patrick and a few colleagues showed up at one of the first Internet World trade conventions. The star of the show, with the biggest booth, was rival Digital Equipment. Like Grossman's before him, Patrick's competitive fires were stoked. The next day, the convention's organizers auctioned off space for the next show, scheduled for December, and Patrick signed IBM up for the biggest display, at a cost of tens of thousands of dollars. "It was money I did not have," admits Patrick, "but I knew

I could find it somehow. If you don't occasionally exceed your formal authority, you are not pushing the envelope."

Now that IBM's name was on the line, Patrick had a rallying point for all of the company's various Internet-related projects. Here was his chance to seed his message across the entire company. He sent letters to the general managers of all the

asked him about his organization, he replied, "You're looking at it, and there are hundreds more."

Throwing Hand Grenades

Patrick was a relentless campaigner, spreading the good word about the Internet in countless speeches inside and outside IBM. "Somebody would invite me to talk about the ThinkPad," he recalls, "and I would

Like dissidents using a purloined duplicator in the old Soviet Union, Patrick and Grossman used the Web to build a community of Web fans that would ultimately transform IBM.

business units asking for anything they had that smelled like the Internet. They would have to put in only a little money, he promised, and he would coordinate everything. It turned out that IBM had a lot more Web technology brewing than even he had expected. But none of it was really ready to go to market. Still, by December, Patrick was able to showcase IBM's Global Network, as the world's largest Internet service provider, as well as a Web browser that preceded both Netscape's Navigator and Microsoft's Internet Explorer. IBM stole the show and became a fixture at every Internet World thereafter.

Constantly fighting IBM's parochialism, Patrick took every opportunity to drive home the point that the Web was a companywide issue and not the preserve of a single division. At the next Internet World, in June 1995, he challenged his compatriots to leave their local biases at the door: "The night before the show, I got everybody together in an auditorium and said, 'We are here because we are the IBM Internet team for the next three days. You are not IBM Austin or IBM Germany.' That is part of the culture of the Internet—boundaryless, flat."

The huge IBM booth generated a lot of curiosity among the show's other participants. When people asked Patrick to whom he reported, he said, "The Internet." When they

come talk about the Internet instead. I'd use the ThinkPad to bring up Web page presentations rather than PowerPoint slides." He also made himself accessible to the media. But even when talking to reporters, his prime constituency was still the vast swath of unconverted IBMers. He just couldn't shut up about the Internet. Says Patrick: "If you believe it, you've got to be out there constantly talking about it, not sometimes, but all the time. If you know you're right, you just keep going."

While Patrick and his crew were throwing Internet hand grenades into every meeting they could wheedle their way into, Gerstner was fanning the flames from above. Gerstner's early belief in the importance of network computing dovetailed nicely with the logic of the Internet. Having bought into Patrick's pitch, Gerstner was ever ready to give IBM's Web-heads a boost. He insisted that the company put its annual and quarterly reports on the Web, and he signed up to give a keynote address at Internet World. This was while Bill Gates and others were still dismissing the Web as an insecure medium for consumer e-commerce. Within IBM, Patrick became a trusted emissary between the company's buttoned-down corporate types and the T-shirted buccaneers who were plugged into Net culture and living on Internet time. Patrick had the ear



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of IBM's aristocracy, and his message was simple and unequivocal: "Miss this and you miss the future of computing." At the same time, Patrick convinced Grossman and his ilk that not everyone in the head office was a Neanderthal. "I used to think that IBM at senior levels was clueless, that these guys had no idea how to run a company," says Grossman. "But one of the many things that has impressed me is that the people who are running this company are really brilliant businesspeople. Somehow we connected them to the street. Knowing how to shorten paths to those decision makers was key."

When IBM finally set up a small, formal Internet group, with Patrick as chief technical officer, he insisted that the team stay separate from IBM's traditional software development organization. His logic: "I do believe there's a benefit in being separate. Otherwise, we'd have to start going to meetings. Pretty soon we'd be part of someone else's organization, and a budget cut would come along, and we'd be gone."

Even with the formal unit in place, Patrick and Grossman didn't disband their grassroots coalition. As the 1996 Summer Olympics approached, the group went through several watershed events. Patrick lent Grossman out for 18 months to corporate marketing, which was in charge of the Olympics project. For the first time, the Olympics would have an official Web site, and IBM would build it. Grossman launched himself into building the site and was soon begging Patrick for extra bodies. "Patrick did the magic to get them hired," says Grossman, "and I morphed from doing the grunt technical work to being Tom Sawyer and getting other people to help whitewash the fence."

To prepare for the Olympics, Grossman and his team had also started developing Web sites for other sporting events such as the 1995 U.S. Open and Wimbledon. For the U.S. Open site, he gave a couple of college interns from MIT the task of writing a program to connect a scoring database to the Web site. "By the end of the summer," remembers Grossman, "we were sitting in a

trailer, barely keeping together a Web site with a million people a day pounding away at it for scores. It was held together by Scotch tape, but we were learning about scalability." It was amazing, thought Grossman, that all those people would come to a site merely for sports scores.

IBM's second surprise came in 1996 when a chess match between world champion Garry Kasparov and an IBM supercomputer named Deep Blue generated a flood of global interest. Corporate marketing had asked Grossman earlier to build the Web site for the match, but he was booked with too many other assignments, so the site was outsourced to an advertising agency that did little more than put up a cheesy chessboard. The day of the first match, the site was overloaded with traffic and crashed.

"Nobody had any idea this was going to be such a big deal," says Patrick. IBM went into panic mode. Grossman and a handful of IBM's best Web engineers jumped in to

take over the site. With only 36 hours to revamp it before the next match, they got Wladawsky-Berger to pull a \$500,000 supercomputer off the assembly line. The site didn't crash again, but the incident raised the anxiety level about the upcoming Olympics. If IBM was having difficulty running a Web site for a chess match, what were the Olympics going to be like? The incident succeeded in convincing a few more skeptics that the Internet was going to be beyond Big.

The Olympics site had to be able to withstand anything. Patrick went tin-cupping again, asking all the general managers to lend him their best people and best equipment. He got not one supercomputer, but three, and his team grew to about 100 people. By the time it was over, IBM had built what was then the world's largest Web site, which withstood up to 17 million hits a day with few shutdowns. The content on the site was replicated on servers across four continents. IBM even learned how to

do a little e-commerce when a demo site for on-line ticket sales attracted a flood of credit card numbers and \$5 million in orders.

The Power of Results

For Patrick and Grossman, the Olympics was just one more high-profile way to show IBM the possibilities of the Internet. It was also an easy way to get funding for development. "I used the Olympics as a front," admits Grossman. "What I was doing, without telling anyone, was getting computing resources. I also thought the fastest way to get IBM to change was to work from the outside in. If IBM saw itself written about in the papers, then it would change faster than if we got mired in an internal process."

Grossman's on-the-fly development, in public no less, was the complete antithesis of IBM's traditional way of doing things, which was to push developers to perfect products before letting them out the door. It was the difference between

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improv comedy and a carefully rehearsed Broadway play. The old model didn't make much sense on the Web, where if something breaks, you can fix it without sending out millions of CD-ROMs with new software. You just change the software on the server, and everyone who logs on automatically gets the new version.

Grossman and Patrick quickly concluded that creating Web-enabled software called for a new set of software development principles, which they summarized and shared within the burgeoning IBM Web community:

- Start simple; grow fast.
- Trial by fire.
- Just don't inhale (the stale air of orthodoxy).
- Just enough is good enough.
- Skip the krill (go to the top of the food chain when you're trying to sell your idea).
- Wherever you go, there you are (the Net has no bounds).
- No blinders.
- Take risks; make mistakes quickly; fix them fast.
- Don't get pinned down (to any one way of thinking).

Much of the technology that Grossman and his crew first prototyped would later make its way into industrial-strength products. For instance, the Web server software developed for the Olympics evolved into a product called Websphere, and much of what Grossman's group learned formed the basis for a Web-

"We have never been a threat to any other part of the company. From the beginning, our goal was to help IBM become the Internet Business Machines company."

hosting business that today supports tens of thousands of Web sites.

Following the Olympics, the Internet group stepped up its proselytizing within IBM. Grossman, who had become the senior technical staff member on Patrick's team, set

up an Internet lab to bring in executives from all over the company to experience the Web's possibilities. Patrick's group also started a project called "Web Ahead," which worked to revolutionize the company's own IT systems through Internet technology. For instance, the team took the old terminal-based corporate directory and wrote a Java application that gave it a great graphical interface and cool features. With a few clicks, employees could look up a colleague, see what computer skills he or she had, and then ask the directory to list every other employee at IBM with those same skills. These "Blue Pages" were an instant hit.

Only a few dozen people officially worked for the Internet group, so Patrick was constantly pleading to borrow people (who were usually already part of his virtual team) from other departments. In this effort, his most important ally was the team's ever-lengthening list of success stories. People could argue with position papers, but they couldn't argue with results. "I have never been turned down on anything I have asked for, and I have asked for a lot," he says. "I would go to a general manager and say, 'I need you to pull some disk drives from the assembly line, and I need your top engineer. What you will get out of it is unique. Your guy is going to come back to your group, and you are going to have a hell of a reference story to talk about. It will be great PR. We will make your stuff work on the Internet.'" Patrick had gained credibility without a big job title or a megabudget.

Patrick was hard to refuse, partly because it was clear that he was operating in IBM's interests as a whole and not just fighting for his own little group. As he

puts it, "I didn't have any allegiance to any one product group. Although I had a budget that came out of the software group, I didn't think of us as part of the software group. When somebody called us and asked for help, we didn't ask them for a budget

code. We'd say, 'Sure.' We have never been a threat to any other part of the company. From the beginning, our goal was to help IBM become the Internet Business Machines company."

Patrick was quick to assure would-be donors that the relationships he was forging worked both ways. He would borrow people from various business units, but at any given time, about a quarter of his own people would be out on loan to other units, and Web Ahead alumni were regularly posted to permanent positions across IBM. When that happened, he would tell his remaining staff, "We did not lose Bill. We colonized the network hardware division. Now there is one of us living there."

Again and again, throughout their Internet campaign, Patrick and Grossman broke long-standing IBM rules and overstepped the boundaries of their own authority. But because their cause was so important and their commitment to IBM's success so visibly selfless, they got away with things that had often sunk careers at Big Blue. Then and now, Patrick is unapologetic: "If you think of yourself as being in a box with boundaries, you're not going to have any breakthroughs. If [people on my team] come to me and say, 'We failed because we didn't have the authority to do something,' I'll say that's crazy."

Inside IBM and out, Patrick and Grossman are today recognized for their pivotal contribution to their company's e-business metamorphosis. With the support of a prochange CEO, these two unlikely heroes—a software nerd and a corporate staffer—helped IBM do something it hadn't done for a couple of decades: lead from the front.

The author acknowledges the assistance of Erick Schonfeld in the preparation of this article.

Reprint R00406

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