WIRED

The Legend of Bob Metcalfe

Father of Ethernet, founder of 3Com, in-demand author, pundit, and conference host, Bob Metcalfe is overcommitted and then some. But never too busy to make sure the good guys - himself included - win.

By Scott Kirsner

"I've screwed up and I've overcommitted and it's typical of me."

Bob Metcalfe is in a foul mood. He's taking a break from a 17-city speaking tour that has included stops in Kuala Lumpur, Miami, and Munich. It's a drizzly day on Kelmscott Farm in Lincolnville, Maine, where Metcalfe lives with his wife, two children, and 250 rare Cotswold sheep, Nigerian dwarf goats, and Gloucestershire Old Spots pigs. Metcalfe has a cold, and his rumbly, resonant cough registers at about 6.0 on the Richter scale.

"I'm supposed to be writing a book and I'm late and my publisher's pissed at me," he continues, noting his deadline is two months past. He is also contractually bound to produce 685 words a week for his *InfoWorld* column, "From the Ether," and he's in the midst of helping MIT relaunch *Technology Review,* the university's 100-year-old "magazine of innovation."

Want more? He is also consumed with planning two of the biggest-name annual tech conferences in the world - Vortex and Agenda 99. The former, a springtime confab, focuses on the convergence of the Net, telecom, and equipment industries. The latter is an October affair with a typically unmodest Metcalfean goal: to chart the high tech industry's path for the coming year. An idea of the pull exerted by the IDG-sponsored, invitation-only event (staged this year at the Scottsdale, Arizona, resort The Phoenician) is suggested by the speakers Metcalfe rounded up: FCC chair William Kennard; Arizona Senator John McCain, oft-mentioned as a possible 2000 GOP presidential candidate; Joel Klein, head of the Justice Department's antitrust offensive against Microsoft; '96 Republican presidential candidate Steve Forbes; Oracle's Larry Ellison; and Intel's Andy Grove.

Adding to the overload is the fact Metcalfe turned 52 this year. "That," calculates the engineer turned entrepreneur turned tech journalist, "leaves me just 13 years before retirement to win the Pulitzer prize." The remark is made in passing, but, whether the quest is absurd or not, he's dead serious.

Ignore for the moment the long odds of winning such an honor - the pinnacle of achievement in American letters and daily journalism. How did the inventor of Ethernet and founder of 3Com tack so sharply away from the world of hands-on tech innovation and corporate combat? Talk to enough of Metcalfe's pals in industry and academe, and you'll run into several who think the writing life is, well, not the optimal use of Metcalfe's talents. "I think he's capable of a lot more," says one.

Others, though, say that Metcalfe is simply a man who thrives on trying new things. Mitch Kapor, who was building Lotus around the same time Metcalfe was building 3Com, and has now reinvented himself as a venture capitalist, is of this camp.

"Sometimes we all want a change," Kapor says. "He gets to put together conferences like Agenda,

which are critical to the culture of the computer industry. And with his column, he has a powerful platform to speak on important issues.... I think the media could use more people like Bob - he's one of the few who's not afraid to take on big-picture issues, and he brings a solid technical understanding to them. For Bob, this is like the second act."

Metcalfe, who comes across as a man who has never known defeat, took up writing in 1990 after losing a boardroom skirmish at 3Com. The board of directors chose Eric Benhamou, a soft-spoken engineer nine years Metcalfe's junior, to run the networking company he had founded in his Palo Alto apartment in 1979.

"Benhamou is a nerd who can't give a presentation," says Metcalfe, still irritated eight years after the fact. "He's not horrible, but he's not charismatic." But Metcalfe acknowledges that it was Benhamou, not he, who won 3Com entry into the Fortune 500 and grew it into a US$5 billion powerhouse. "I've learned watching him that you don't have to be charismatic to be a great CEO. To this day, he doesn't have a charismatic bone in his body."

Metcalfe, by contrast, is a cauldron of charisma. He is tough and charming, a persuader who knows how to listen, a provocateur who miraculously avoids making too many enemies. That combination of qualities made Ethernet a networking standard (today, it connects more than 100 million computers) and enabled Metcalfe to raise the first million dollars to launch 3Com.

After losing out to Benhamou in the contest to succeed Bill Krause as 3Com CEO, Metcalfe left the company and eventually sold his stake in the firm. He departed Silicon Valley and bought the 150-acre farm in Maine, along with a gussied-up lobster boat called *Enthusiasm,* a cabin and 50 acres on Green's Island in Penobscot Bay, and a six-story town house in Boston's Back Bay.

His glory days - as an MIT whiz kid working on the Arpanet, as a researcher at Xerox's Palo Alto Research Center developing Ethernet, as the hard-charging young founder of 3Com - are long behind him. Now he sweats over a weekly column deadline. Each piece takes him about six hours to write, usually in hotel rooms, usually late at night. "I consider what I write to be literature," he says. "I choose the words carefully."

In his crisp, conversational pieces for *InfoWorld,* he introduces new companies with innovative ideas. He skewers Microsoft and the Baby Bells for what he sees as monopolistic practices. And he makes predictions - like his famous pronouncement that the Internet would "go spectacularly supernova and in 1996 catastrophically collapse." When that prediction failed to come true, Metcalfe engaged in some highly theatrical public penance: In front of an audience, he put that particular column into a blender, poured in some water, and proceeded to eat the resulting frappe with a spoon.

"His shenanigans, like eating his own column, are marvelous shenanigans," says Michael Dertouzos, director of MIT's Laboratory for Computer Science and a longtime friend. "He knows how to project himself. People think that anyone who's good in theatrics is shallow. But he isn't. This guy's deep."

And busy. Always busy. In addition to everything else, there is a one-year stint as president of MIT's alumni association, parties at his Back Bay brownstone, and R&R with his wife, Robyn, and his children, Max, 9, and Julia, 11.

He also devotes a fair amount of time and energy to polishing the legend of Robert Melancton Metcalfe.

> **"He's not horrible, but he's not charismatic," Metcalfe says of the man who beat him out for the 3Com CEO slot. Metcalfe, by contrast, is a cauldron of charisma.**

He is an actor at heart - a ham, really - and he sings his song of himself with a dramatic flair. Sitting in the front parlor of his town house, Metcalfe goes through an extensive repertoire of hand gestures, facial expressions, and vocal impersonations, performing for me and my tape recorder.

Listen, for instance, to the story of how, while still a grade-schooler on Long Island, he fixed on the idea of going to MIT to study electrical engineering.

"In fourth grade, I had to write a book report, and I hadn't read a book, and it was the night before." He stops for a second. "Typical of me. I've always been that way. So I went down to my father's shop in the basement, on South Thompson Drive, in Bay Shore, New York.

"In the basement, my father - an aerospace technician - had a shelf of books. There was one book that caught my eye. It was black. An electrical engineering textbook written by an MIT professor or two. A book that I could not possibly understand. And as I recall it, I wrote one of those fake book reports."

He shifts into a nasal, bored caricature of a preadolescent. "'This book had its high points and its low points, but on average I think it was an average book.' One of those lame things, when you don't have anything to say, and you just write stuff like that.

"But I must've known that the book report wasn't going to fly, so I added a gratuitous sentence at the end of the book report calculated to make the teacher like the book report. And the sentence, in my recollection, said" - now, he switches into a deep, stentorian voice - "'And I plan to go to MIT and get a degree in electrical engineering.' I must've thought that my teacher would like that - that I'd been inspired by this book - and give me a good grade."

A schoolboy effort to please or not, Metcalfe did wind up at MIT after graduating second in his class from Bay Shore High School, and he did get a bachelor's in electrical engineering, tacking on an extra degree in management as well.

He worked a series of jobs to pay his expenses - for a time programming Univacs for Raytheon on the graveyard shift - and was captain of MIT's varsity tennis team.

The next installment of the Metcalfe Saga begins with his Harvard grad school days, where he pursued first a master's in applied mathematics, then a doctorate in computer science. Harvard refused to let him, a lowly graduate student, be responsible for connecting the school to the brand-new Arpanet, so Metcalfe took a job with MIT's Project MAC. There, he was responsible for building some of the hardware that would link MIT's minicomputers with the Arpanet. The interface message processor, or IMP, that he built for the project now hangs on the wall of his Boston home's penthouse office.

After building the IMP, Metcalfe wrote a pamphlet called *Scenarios for the Arpanet* - a tract the author now calls "the first *Internet for Dummies.*" Compiled for a 1972 Arpanet conference, *Scenarios* was an introduction to the applications accessible on the system and was intended to convince nontechnical types of the network's usefulness. The three-day Arpanet coming-out party, held in the ballroom at the Washington Hilton, was important in shaping Metcalfe's worldview: that there are innovators and there are troglodytes, and the troglodytes are pretty much a lost cause.

Because of his authorship of *Scenarios,* Metcalfe was asked to demo the Arpanet for a group of AT&T execs attending the confab. The pre-breakup phone monopoly had already begun lobbying against the Internet, fearful that a packet-switched network would eventually eclipse its own circuit-switched system.

"I'm sitting at a terminal," recalls Metcalfe, "this graduate student with a huge red bushy beard, giving a tour of this network to 10 executives from AT&T, all of whom were wearing pinstripe suits ... and in the middle of my demo - for the one time in the whole three days - the system crashed. And I looked up. And they ... were happy ... that it crashed. They were smiling." Metcalfe is still

incredulous. "This was my life's work. My crusade. And these guys were happy that it didn't work."

The takeaway? "I saw that there are people who will connive against innovation," he says. "They're hostile to it. And that has shaped my behavior ever since." Metcalfe's is a world of good guys and bad guys, and since that day in 1972, noncompetitive telcos have been planted firmly in the latter category.

Metcalfe is neither shy about bringing up his accomplishments nor meek in staking out his turf. He claims to have written the first memo alerting fellow Arpanet researchers to the network's vulnerability to hackers. He also claims to have invented the term *ping,* as in, "Let me ping that computer and see if it's running." During three days of interviews, he also manages to mention that he coined the term *extranet* in addition to *ethernet;* that he was the first writer to nail Microsoft on its monopolistic practices (back in 1991); and that he invented the "terminal keynote" speech, a 45-minute summing up that ends his tech conferences.

He's equally proud of Metcalfe's Law, so named by friend George Gilder. The maxim, conceived to convince the world to adopt his Ethernet standard, reads thus: The value of a network grows as the square of the number of its users. Or, more plainly stated: The more users who can talk to each other on a network, the more valuable it is. (Metcalfe's Law is central to the idea of "network externalities," a concept that describes the value of networks in light of a variety of economic factors.)

Enamored of the Arpanet, Metcalfe made it the topic of his doctoral dissertation. But something surprising happened. Harvard flunked him. "Not theoretical enough," they said. Graduation invitations had already been sent out, and Metcalfe's parents were set to make the trip to Cambridge from New York. Metcalfe had already accepted a position at Xerox's Palo Alto Research Center.

Listening to him, it's hard to tell whether Metcalfe is still really angry with Harvard for rejecting his work or whether, like a method actor, he's trying to re-create the emotions he felt.

"They let me go into this thing and they gunned me," he rages. "I'm even willing to stipulate that it wasn't very good. But I'd still justify my anger at those bastards for letting me fail. Had they been doing better jobs as professors, they never would have allowed that to happen. But I hated Harvard and Harvard hated me. It was a class thing from the start."

> **He claims to have coined the terms ping and extranet in addition to ethernet, and to have been the first writer to nail Microsoft's monopolistic practices.**

After breaking the news to his parents, Metcalfe phoned Bob Taylor, head of the computer science lab at PARC and his new boss. "I just failed my defense," Metcalfe told him. He was stunned by Taylor's response. "Come on anyway," Taylor said. "Finish it up out here."

Just as Metcalfe will never forgive Harvard, he says Taylor will forever remain a hero. "There's nothing Bob Taylor can do wrong."

On stage, Metcalfe is a commanding presence. Standing 6'1", with a wave of thick, now silvery hair, his body language suggests someone who will not easily be budged. He has the physique of a retired football player - big-boned, and just a bit on the beefy side.

Delivering one of his terminal keynotes at Boston's Internet Commerce Expo in March, he grabs the audience the instant he's introduced: "It's OK to react to what I say. Shake your head if you disagree with me," he urges. "Nod if you're with me. Smile, raise your hand, boo, clap, hiss, ask questions."

The people in the audience love him for giving them permission to be something more than warm bodies in uncomfortable chairs. When he slams the telephone establishment for limiting the speed of Internet access - "What we need is not faster dial-up modems, but vicious competition among satellite, DSL, cable modems, power lines, you name it" - his listeners erupt. When he mentions Microsoft, the crowd hisses. Metcalfe then introduces his concept of Freedom of Choice Among Competing Alternatives: FOCACA. "That way I can say that Microsoft has been stepping in it lately." Uproarious laughter.

"He's always been a great speaker," says David Liddle, CEO of Interval Research and a friend of Metcalfe's since the two worked together at Xerox PARC. "He's outgoing, and he has a lot of self-possession and focus. He's someone who's able to bear down and really do his best in a public setting."

Metcalfe is also a great listener: On an MIT panel on innovation, he is visibly attentive to the moderator, the audience, the other speakers. His brow furrows, and his head cocks, and he leans forward slightly, appearing to lock onto the ideas being discussed. His face is never blank. He frowns big, and smiles broad. And when he speaks, he has been listening so hard that every word he utters is well chosen. Asked to define innovation, he offers, "Invention is a flower. Innovation is a weed."

That utterance electrifies the panel. The moderator lights up, and the other panelists - including Michael Dertouzos and John Seely Brown, the current director of Xerox PARC - seem to exert themselves to match Metcalfe's level of discourse, energy, and thoughtfulness. It's like watching Charlie Parker sitting in with a high school jazz band.

"Bob loves to traffic in the world of ideas, and I think that's what he's enjoying most about his current role in the industry," says Pat McGovern, chair of International Data Group and Metcalfe's boss. "He's immensely satisfied by a good intellectual debate."

Installment three of the Legend of Metcalfe involves a pull-out couch in Washington, DC, a bad case of jet lag, and a two-year-old book of conference proceedings.

Metcalfe was working at PARC and also helping train military officers to use Arpanet. When he traveled to Washington, he would stay with Steve Crocker, a friend who was working for the Department of Defense as an Arpanet program manager.

"Steve had a couch in his living room - an important couch," begins Metcalfe. "During one visit in 1972, I opened it and got ready to go to sleep, but I was jet-lagged. I'm thrashing about for something to read. He had some shelves. I stumbled across a book called *AFIPS Conference Proceedings, 1970.*"

Not, you might safely say, your typical bedtime reading. But Metcalfe was riveted by what he found. The American Federation of Information Processing Societies volume contained a paper about a radio-based network of computers called AlohaNet, developed at the University of Hawaii. "As I'm reading it, not only do I understand it, but I disagree with it," he recalls. He identified and fixed some of the bugs in the AlohaNet model. He made his analysis of the AlohaNet part of a revised thesis, which finally earned him his Harvard PhD.

Back at PARC, researchers were working on the Xerox Alto, the first personal computer, and EARS, the first laser printer. But they needed a network to link the PCs with each other and the laser printer, which was capable of spitting out 60 pages a minute at 500-dots-per-inch resolution. Metcalfe was assigned the task of devising a simple, flexible networking scheme that had some tough requirements: The system must allow PCs and laser printers to be installed without requiring that the network be reconfigured or shut down as devices were added.

"The first time I saw Metcalfe was in the basement of PARC," recalls David Boggs, who was working there while a graduate student at nearby Stanford University. "I was assembling a Data General Nova, and this guy shows up with an armload of coaxial cable, sits down with a soldering iron, and starts sending signals down the coax to see what would happen." Metcalfe was hammering out his design, writing a memo a week to his fellow researchers at Xerox's computer science lab, incrementally fleshing out his ideas. He enlisted Boggs to help him design and debug the networking hardware.

With his innate sense of moment, Metcalfe pegs the exact day Ethernet was born: May 22, 1973. That was the day he circulated a memo titled "Alto Ethernet." It contained a rough schematic of how Ethernet would work. "That is the first time *ethernet* appears as a word, as does the idea of using coax as ether, where the participating stations, like in AlohaNet or Arpanet, would inject their packets of data, they'd travel around at megabits per second, there would be collisions, and retransmissions, and back-off," Metcalfe explains. (Boggs, more pragmatic, offers another date as the genesis of Ethernet: November 11, 1973, the first day the system actually functioned.)

You can get a rough sense of how Ethernet works by attending a party at Metcalfe's Boston home, on Beacon Street. The occasion: A celebration of the relaunch of *Technology Review.* Metcalfe serves on the magazine's advisory board.

> **"I don't have this house because I invented Ethernet," he says of his six-story Back Bay manse. "I have this house because I *sold* Ethernet for a *decade."***

In the wood-paneled library on the second floor, there's a bar set up and a cluster of people standing on one side of the room, near a magazine rack stocked with *InfoWorld* and other technology publications. I ask the others what they think about the new *Technology Review.* Two people start to answer simultaneously. They both stop for a second, and then one of them starts to answer, while the other remains silent. It's natural that as the group grows bigger, and interruptions more frequent, the time someone stays quiet lengthens.

Put that social dynamic on a wire and you've got Ethernet.

"The computer that wishes to transmit a packet of data listens to the channel for quiet," explains Ron Crane, a former Xerox PARC researcher who later joined Metcalfe as 3Com's fourth employee. "If it's quiet, the computer will transmit. And while it's transmitting, it checks continuously to make sure there aren't any collisions happening. If there is one happening, it stops, waits a random amount of time, and tries again. And the key innovation of Ethernet, compared with AlohaNet, was that a computer trying to transmit backs off more - that is, waits a longer period of time - the busier the network gets."

The main reason Ethernet - which in its quarter-century has accelerated from 3 megabits to 1 gigabit per second - prevailed over competing technologies like IBM's Token Ring is because of Metcalfe's toughness and charisma. He invented Ethernet, but he also made sure it became an open standard.

"Bob is able to turn his ideas into actions because he's a very persuasive guy," says Liddle. "While we were at Xerox, he worked doggedly to get people to understand the importance of Ethernet as the direction we should go with all our new products. And after he left [in 1979], he worked really hard to get Intel and Digital to agree to license Ethernet, and he got Xerox to agree that it should be an open networking standard. You don't create a standard like Ethernet without being a persuasive person."

Metcalfe's crusade transcended mere persuasiveness as he won over some of the most powerful

figures in the tech world to his vision. "Metcalfe was essential to getting DEC to back Ethernet," says Sam Fuller, then a top manager at the company. "He talked to CEO Ken Olsen and engineering vice president Gordon Bell and talked to practically every engineering manager. He could talk to all levels, and he is an incredible salesman."

Digital, Intel, and Xerox eventually joined in support of Ethernet, lining up against IBM's Token Ring technology and a since-abandoned system developed at General Motors called Token Bus. "Bob was the catalyst to get us all together and to get us to agree upon that standard," says Bell.

It's evidence of the incredibly high expectations Metcalfe has for himself that his one regret from this period was that he "failed to sell IBM on Ethernet" - a task that on its face looks impossible. And it's evidence of his incredibly high self-esteem that he explains that failure away by claiming with a smirk, "That was before I learned how to sell."

In a room, Metcalfe is the person toward whom the crowd gravitates. That gravitational pull, while impeding his ability to flit from one conversation to another, was what attracted venture capitalists to the small consulting company Metcalfe started upon leaving Xerox PARC.

The name, 3Com, stood for "computers, communication, compatibility," and after working with companies like GE, Texas Instruments, and Exxon to help them deploy Ethernet, Metcalfe decided that 3Com needed to become a product company, pushing the hardware and software needed to make the system run. In the fall of 1980, he began showing a business plan to venture capitalists.

"Ethernet, at the time, was controversial," recalls Gib Myers, a general partner at the Mayfield Fund. "But in our business, when you meet a guy like Metcalfe who is clearly a leader and a guru in his field, you just say, 'Let's go with this horse.' He was a technical beacon, but he had the personality and the leadership skills, and you want someone like that when you're backing a small company in a new market."

By February 1981, venture capitalists had given Metcalfe $1.1 million for a third of his young company, and Mayfield brought in a seasoned manager, Bill Krause from Hewlett-Packard, to help run the company (Krause eventually served as 3Com's president, CEO, and chair).

Metcalfe says his proudest accomplishment at the company was as head of sales and marketing. He claims credit for bringing revenue from zero to more than $1 million a month by 1984. And he's careful to point out that it was this aptitude - not his skill as an inventor - that earned him his fortune.

"Flocks of MIT engineers come over here," Metcalfe tells me, leading me up the back staircase at Beacon Street. "I love them, so I invite them. They look at this and say, 'Wow! What a great house! I want to invent something like Ethernet.'" The walls of the narrow stairway are lined with photos and framed documents, like the first stock certificate issued at 3Com, four Ethernet patents, a photo of Metcalfe and Boggs, and articles Metcalfe has written for *The New York Times* and *The Wall Street Journal.*

"I have to sit 'em down for an hour and say, 'No, I don't have this house because I invented Ethernet. I have this house because I went to Cleveland and Schenectady and places like that. I *sold* Ethernet for a *decade.* That's why I have this house. It had nothing to do with that brainstorm in 1973.'" He pauses for effect, as we arrive at his top-floor office. "And they don't like that story."

Boggs is one engineer who understands well the moral of that tale. He's not poor - he drives a classy gray Mercedes - but he's not the multimillionaire that Metcalfe is. And he's not bitter about Metcalfe's success. First, he readily admits that Ethernet was Metcalfe's idea, and that his role was that of an assistant. Second, Boggs acknowledges the energy invested in all of those sales calls to Cleveland and Schenectady. But Boggs, after a few cups of coffee, does begin to sound wistfully

envious of Metcalfe's people skills.

"Ethernet, had I invented it, never would have gone anywhere - it would have remained a research-lab innovation," Boggs says. "Bob's articulate. He's extremely handsome. The combination of those two things, and having a good idea, makes it easy."

As a tech sector pundit who has actually done something, Metcalfe has far more influence than he could have had as a CEO.

3Com struggled throughout much of the '80s, first because of the lingering standards battle, then because of an unfocused product strategy and an unhealthy obsession with archrival Novell.

As part of its campaign to best Novell, 3Com joined with Microsoft and IBM to develop and sell new WAN management software. Describing the climax of what he summarizes as a "horrible" partnership with Redmond, Metcalfe says that "one day Microsoft announced that they would be selling our product to our customers. Our contract didn't say they couldn't. And not only that, our contract said we had to continue paying them the minimum royalties even though we were no longer selling the product, because they were selling it around us to our own customers. So this -" Metcalfe stops talking, and growls a very low, throaty growl. He's trying, it seems, to release the aggravation he still feels over the situation.

"The company eventually had to write off $87 million. Not all because of Microsoft - just most of it. We got screwed." I ask whether that experience has influenced his writing on Microsoft, which he has unequivocally accused of monopolistic practices.

"That's just the argument that Microsoft uses against me," Metcalfe protests. "They screwed my company, and therefore, 'Don't listen to Bob - he just has a grudge.' It's like saying, 'Don't listen to Jews about anti-Semitism. They just have a grudge against Hitler.'"

Metcalfe pauses for a second and looks out the window, down the street. "I'm 52 years old. What is it you get when you live a life? You learn things. Am I supposed to forget them?"

After failing to win the chief executive job at 3Com, Metcalfe accepted a prestigious fellowship at England's Cambridge University. But after only a year, Metcalfe was tired of academic life and returned to the West Coast to take a job as publisher of *InfoWorld.* "I'd been trying to get a column in *InfoWorld,* and then-editor Stewart Alsop wouldn't give me one," Metcalfe recalls. "But they did need a publisher, so I did that for two and a half years, with great success. We increased profits by two and a half times, and I got to write a publisher's column. So being publisher was just my way of getting a column in *InfoWorld."*

"Bob was genuinely curious about the publishing business and how it worked," says Kelly Conlin, president of International Data Group, *InfoWorld's* parent. "He was a very quick study. In fact, you can really time the resurgence of *InfoWorld* to Bob's arrival."

Eventually, Metcalfe bowed out of the publisher's role to focus on his writing and become more involved in setting IDG's strategy, as vice president of technology. Today, he serves as a director for IDG.

Some believe that his current role as one of the tech sector's leading pundits - a pundit who has actually *done something* - affords him more influence than he would have had as chief of 3Com. "He's got a lot more sway as a columnist than he would have as head of one of the three big suppliers of networking equipment," says Bell, the former Digital vice president. "People listen to him, and they respect him. He has an opportunity now to be influential over the direction of

technology, rather than the direction of one company's P&L."

And shrugging off the publisher's mantle has also freed Metcalfe to be more aggressive in his ideological crusade of the moment: seeking complete deregulation of the telecommunications sector.

One of his allies in that crusade, former FCC chair Reed Hundt, says Metcalfe is one of the high tech entrepreneurs most committed to shaping public policy.

"He has jumped in up to his armpits in the great policy debate of our time: How can we totally deregulate the communications industry?" says Hundt. "He is demonstrating that a famous entrepreneur can be a darn good policy advocate, which is a very rare metamorphosis in American business. He's a natural-born free thinker, and he brings tremendous clarity of thought and total bona fides as a technologist to the debate."

Metcalfe also brings a knack for not making too many enemies along the way. Despite his frequent thrusts in Microsoft's direction, Bill Gates has regularly spoken at conferences that Metcalfe has organized. Ray Smith, the chair and CEOof Bell Atlantic, gamely showed up at Metcalfe's Camden Conference on Telecommunications last year despite knowing beforehand that Metcalfe would speak out against Bell Atlantic's stranglehold on the local loop.

"It's hard to have Bob as an enemy," says Ralph Ungermann, founder of Ungermann-Bass, an early 3Com rival. "His style is such that he's easy to get along with, even if he's a competitor. He's honest and open. It's never personal with Bob. It's intellectual. It's about ideas."

That's not to say that Metcalfe hasn't ruffled a few feathers. Roy Neel, president and CEO of the United States Telephone Association in Washington, complains about Metcalfe's tunnel vision. Neel - who Metcalfe once derided as a propagandist - says Metcalfe isn't interested in fundamental issues like universal access to telephone service, but is focused narrowly on the speed and cost of Internet access.

"Metcalfe has one objective, and that's to find the bad guys and to pound them, and that distorts the picture," Neel says. "It's not objective journalism." When he's done rebutting Metcalfe's comments on the telecom industry, though, Neel confesses that if Metcalfe held a conference and invited him to speak, he would consider it. "I don't take this stuff personally."

I asked Metcalfe to list the things that make him most happy.

First, he mentioned giving a good speech. "I really like delivering it, and I like the effect it has on people." He also revels in the half-hour after a speech, when audience members cluster around him to offer congratulations, ask questions, and take issue with his ideas.

Second, he said, is raising two children - taking his daughter to baseball practice, and watching his son catch frogs on the farm and chase his daughter with them.

> **"It's not objective journalism," a telco honcho complains of Metcalfe's writing.**
> **"He has one objective - to find the bad guys and pound them."**

Then, there is the wooden boat he just had built down in Rockland, Maine. It's a small sailboat, a Haven 12-and-a-half, and it was designed by the late Joel White, son of the writer E. B. White and a graduate of MIT in naval architecture.

Fourth is the farm, which Robyn runs as an educational foundation, busing in children from all over New England to learn about the rare animals she keeps. Kelmscott hosted 13,000 visitors last year on field trips and for events like a Renaissance festival, officially sanctioned Border collie trials, and

lambing days.

Finally, Metcalfe mentions an event that shows that a Harvard PhD and a quarter-century as a leading high tech innovator, entrepreneur, and thinker haven't wrung the last of his adolescent high spirits out of him: Big Boys Camp.

Every August, Metcalfe invites 10 or 15 good friends - Boggs and Crane both attended last year - for a weeklong stay at his cabin on Green's Island. No running water, no electricity. "We sail boats and hike and go on various adventures, and swim nude in Penobscot Bay."

Which reminds him of another story - one that isn't yet part of the legend of Robert Melancton Metcalfe. "My son attended Big Boys Camp this summer. When we first arrived, Dave Thomas [the former editor of *Down East: The Magazine of Maine*] took off all his clothes and dove into the water. All my other friends followed. My son is standing there looking at them, and looking at me. The implication was, 'Prove you're a man, Dad.'

"So instead of just jumping into the water, I climbed to the top of the cabin, took off my clothes, and dove in from there."

Metcalfe has been awarded one prize for his journalism so far, from the San Francisco Exploratorium in 1995, for furthering the public understanding of science. "I hope it's the first of many," he says, unabashedly a man who gauges success by the weight of the medals he has received and the number of readers he attracts.

But the Pulitzer? Is he serious?

I ask Sandy Reed, the editor in chief at *InfoWorld.* "Bob told me that the first time I met him," she says. "That's a driving force. He doesn't just want to be a writer. He wants to be a great writer."

I send an email to Metcalfe, mentioning that for journalism, only writers at daily newspapers are eligible for Pulitzers (*InfoWorld* is a weekly).

"Good point on the Pulitzer prize," his response begins. "This has been pointed out to me before.

"I could work my way into the dailies eventually, and I've given myself another 13 years, which should be plenty (;->).

"Or, a book, and I'm now practicing for the big one - *Ethernet Versus Godzilla.*

"Or, I could get lucky carrying my camera around, hoping to catch a fireman carrying a baby out of a burning building."

But luck has never entered into the Legend of Metcalfe in a significant way, and that's why the smart money will ride on options one and two.

"He has always believed that your destiny is in your own hands," says Al Vezza, Metcalfe's old boss at Project MAC. "His idea was, you work hard and you make it. And he made that come true."

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