William Gates and the Dominance of Microsoft

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Bill Gates at a Windows presentation in 1992.

On August 23, 1995, an unprecedented marketing and media frenzy reached its peak throughout the world. The level of publicity and excitement had rarely been seen before, but **it** was not for a new movie or even a new car. It was for a piece of software. By midnight, customers had already queued up outside computer stores to be among the first to purchase Windows 95, an upgraded operating system for IBM and IBM-compatible personal computers. Microsoft Corporation, the company behind Windows 95, spared no expense in exciting the demand for its new product. It hired the Rolling Stones for an advertising campaign, and distributed an entire issue of the London Times, which contained a special promotional insert. Over 500 reporters flocked to Microsoft's headquarters outside Seattle to cover the official launch, with the comedian Jay Leno presiding.

The introduction of Windows 95 marked an apotheosis of sorts for Bill Gates, Microsoft's cofounder and guiding spirit. His role in the personal computer revolution had given him a net worth estimated in the summer of 1996 at $18 billion, and had turned him into an icon of technoculture. Few American businessmen have ever occupied such a niche in the popular imagination. Just as John D. Rockefeller created order from chaos in the most important new industry of the late nineteenth century, Gates and his company did the same in the most crucial industry of the late twentieth century: computers. And, like Rockefeller, Gates found ways to force the rest of the industry to follow his lead. "Gates reminds me of the nineteenth-century industrial barons who by force of will and business genius built monopolies," said the industry analyst Stewart Alsop.

Though an innovative and forward-thinking entrepreneur, Bill Gates didn't invent crucial technology. Rather, he shrewdly adapted and improved products first made by others. He recognized the coming of the personal computer (PC), long before others did, and deduced that operating systems and applications (software) would be at least as important to the PC business as the nuts-and-bolts equipment (hardware). Part of the reason for Microsoft's dominance in the field lies precisely in Gates's ability to anticipate developments in computer technology and to judge when the public will be ready for them. Another part of Microsoft's success lies in Gates's unwavering confidence in his own ideas. Through the force of his personality, as much as through the popularity of his products, Bill Gates has imposed his own order on the burgeoning computer industry.

Making an Early Mark in a Young Industry

William Henry Gates III was born in 1955, the second of three children in a socially prominent family in Seattle, Washington. His father was a lawyer with a well-connected firm in the city, and his mother was a teacher, active in charity work. Bill was an intelligent boy, but he was overly energetic and prone to getting into trouble at school. When he was eleven, his parents decided to make a change and sent him to the Lakeside School, a prestigious all-boys prep school.

It was at Lakeside in 1968 that Gates was first introduced to the world of the computer, in the form of a teletype machine connected by telephone to a time-share computer. The machine, called an ASR-33, was rudimentary. Essentially it was a typewriter into which the students could plug commands that were sent to the computer; the responses came back typed onto the roll of paper on the teletype. The process was cumbersome, but it changed Gates's life. He quickly mastered BASIC, the computer programming language, and, along with a few other self-taught hackers at Lakeside, he spent countless hours writing programs, playing games, and generally learning his way around the computer. "He was a nerd before the term was invented," as one of his teachers described Gates at the time.

In the late 1960s, computers were developing so rapidly that schoolboys could quickly gain more expertise than trained engineers. Bill Gates, his classmate Paul Allen, and a group of friends soon acquired reputations as programming experts among local teachers and even some University of Washington professors. So in 1971, when Information Sciences, Inc., a Seattle-based computer company, wanted to develop a program for payroll services, it turned to the group of Lakeside students. In exchange for their work, they received free computer time.

While still in high school, Gates and Allen were recruited by TRW to work on a new computerized monitoring system at a power plant along the Oregon border. And it was here that Gates first exhibited the competitive and obsessive traits that would characterize his own style and, later, that of Microsoft. "We had contests to see who could stay in the building, like, three days straight, four days straight, . . . We were just hardcore, writing code," he said.

After graduating from Lakeside, Gates enrolled at Harvard, where he spent a lot of his free time playing poker and hacking in the Aiken Computation Laboratory than he did attending classes. Still, Gates led a typical undergraduate existence, until he received a phone call from an excited Paul Allen in December 1974. Allen, two years older than Bill Gates, had dropped out of the University of Washington to pursue his interest in computers full time. He moved to Cambridge to work for Honeywell, and he had just seen the January 1975 issue of *Popular Electronics.* The cover featured a new minicomputer called the Altair 8800, made by a New Mexico company called MITS. The $400 Altair, which was named after a fictional planet on the TV series *Star Trek,* had rows of toggle switches and flashing lights but no screen or keyboard; users had to find a way to connect it to a teletype or give it commands in code, using the toggle switches. But as a microcomputer that was readily available to the public, the Altair represented an important early effort to put the powerful Intel microprocessor into the hands of individuals, and it generated giddy excitement among computer enthusiasts.

Selling Promises and Delivering

Computer languages serve as a bridge connecting plain English to a computer's unwieldy set of coding. Through a computer language, processors are trained to make desired responses to commands. The first operating languages were developed by the U.S. Navy during World War II. Others that became prominent after the war were FORTRAN, which was effective in mathematical problems, COBOL (used in business), ALGOL, and BASIC. BASIC, developed at Dartmouth College, and a favorite of hobbyists, stood for Beginners' All-purpose Symbolic Instruction Code. Up to 1974 all computer languages in existence had been written for mainframes. Microcomputers, the forerunners of personal computers, were "born" without a computer language.

After reading the *Popular Electronics* article, Allen and Gates quickly reached a conclusion: The Altair couldn't be a practical success without an operating language. Since nobody had ever written one for a micro-computer, the two believed they were precisely the ones to do so. Allen and Gates were masters with BASIC and had experimented with it extensively. They started immediately to tailor BASIC for the Altair 8800. In an act of youthful audacity, Allen wrote Ed Roberts, the Albuquerque-based engineer who invented the Altair, and announced that he and his partner had already developed BASIC for the machine. (Technically speaking, that was untrue.) Roberts told them to put their program together and bring it to New Mexico.

Gates and Allen didn't have an Altair, but they had developed a way to make another type of computer simulate the Altair. Shifting into their compulsive programming mode, they managed to devise a workable form of BASIC in eight weeks. In a marathon cram session, Gates and Allen scribbled lines of code on pads, pausing only occasionally to eat, nap, and, in Gates's case, go to class. In February 1975 a tense Paul Allen flew to New Mexico, never having tested the program on an actual Altair and not knowing for sure if it would work. Arriving at the headquarters of Roberts's company, MITS, he saw an Altair for the first time. Allen nervously entered the language program onto the machine as Roberts watched; most of it was on a paper tape, and some crucial last-minute commands were entered by hand. After absorbing the new instructions, the Altair responded: the teletype in front of Allen asked him a question about the specifications. He answered, and then it typed, "Ready." With that word, a new software industry was launched.

Roberts decided on the spot to offer the new BASIC with his computers. Allen stayed in Albuquerque to continue work on the language while Gates stayed at Harvard, though he would drop out the following year. In the summer of 1975 they founded Micro-Soft (the hyphen was later eliminated). Gates insisted that he have the greater share of a 60-40 split, since he had performed a greater share of the early BASIC development work. The new-born firm quickly inked an agreement with MITS, under which MITS would pay royalties (about $30 a copy) in exchange for licensing rights to the BASIC program, an arrangement that paid $16,000 in royalties in its first year. Some of the money was spent on the company's first marketing effort, an advertisement in a tech-nical journal that read: "Microsoft: What's a Microprocessor without It?"

Gates and Allen were not typical entrepreneurs. They had no business plan, no venture capital, no bank-ers or Small Business Administration loans. Not yet twenty-one years old, Gates couldn't even rent a car. But the young duo had everything necessary for entry into the porous computer industry of the time: They had a product, programming expertise, and, most importantly, a vision of greater possibilities. In January 1977, Gates moved to Albuquerque to be close to MITS. Far away from the east coast corporate centers of IBM and Xerox and from the renowned research laboratories in Berkeley or back in Cambridge, Gates and Allen lived in seedy motels and holed up in dusty offices, developing versions of FORTRAN and COBOL to run on the Altair. As Paul Allen recalled: "We would just work until we dropped."

The fast pace of work at Microsoft mirrored the rapid changes in the marketplace. The Altair was doomed to extinction, as larger companies invested heavily to produce more efficient and powerful minicomput-ers. Gates and Allen knew what was happening. To Gates, however, it made no difference whether a small com-pany or a large one was manufacturing computers: Each machine would need a set of languages, or an operating system that acts as the "brain" of the computer. And after that, it would need programs to perform specialized tasks. "I thought we should do only software," Gates said in 1994. "When you have the microprocessor dou-bling in power every two years, in a sense you can think of computer power as almost free. So you ask, Why be in the business of making something that's almost free? What is the scarce resource? What is it that limits being able to get value out of that infinite computing power? Software."

Of course, computer power is not given away free. But, with technological innovation and growing competition, the cost of computer infrastructure fell drastically. While personal computer prices have remained about the same for years, their power has increased exponentially. Computers with more power can do more—

especially if they have more software. From the very beginning of the PC age, Bill Gates was ready with that software.

When Gates was growing up, computer languages, like BASIC, were in the public domain. Hackers confiscated anything they found in the way of software; it was part of the spirit of the scattered computer community of the sixties. Those easy going times ended, though, when Bill Gates went into the software business. He railed in the press against thieves who copied Microsoft's computer languages without handing over the due royalties. He also spent a lot of time thinking about how to squelch the practice of copying software, and it certainly influenced his predilection to sell his software already installed in computers and thus, as far as he was concerned, paid for.

In August 1977, the Tandy Corporation introduced the TRS-80 computer. With a video display terminal and a keyboard included, the $599 machine resembled later PCs, and it would prove more popular that any other machine of the late seventies. In one of its first important deals, Microsoft licensed Tandy to install its BASIC computer language in the TRS-80. Thanks in large part to the TRS-80, Microsoft's sales rose to $1.36 million in 1978.

The company was on the move—literally and figuratively. With the twenty-two-year-old Gates wanting to be closer to his parents, Microsoft moved back home. Washington State was a long way from the centers of computer development in northern California and Massachusetts, but location didn't matter. The most important tools needed for software development were brains and computers. Microsoft moved to a suite of offices in the Old National Bank building in Bellevue, just outside Seattle. Gates had yet to develop most of the management skills that would make him one of America's most-respected CEOs by the early nineties. As the head of the company, he worked his 130 employees hard—never harder than he drove himself—and the new offices took on the same frenzied pace as the ones back in Albuquerque.

International Business Machines Corporation ("Big Blue") had made a name for itself by producing adding machines for businesses and by creating massive mainframe computers for scientific and industrial concerns. Eager to stake its claim on the burgeoning desktop computer market, IBM in mid-1980 decided to produce its own model. IBM relied on existing components, including Intel microprocessors. But the new machine needed an operating system, the umbrella program that allows the computer to function. Uncertain how to proceed with such a small-scale computer, IBM began searching for an outside firm with experience in writing programs for personal computers. Most importantly, it needed a company that could deliver an operating system reliably and on time.

Just as TRW had once tapped high school graduates and Tandy had relied on a couple of college dropouts, IBM sought out a fledgling company operated by the same two wunderkinds. It was curious that IBM, an institution with nearly $30 billion in revenues, would seek out a $4-million company to provide the key component for the product that would help make its future. However, the difference between the two firms wasn't just a matter of size. IBM's blue-suited, middle-aged executives found themselves face to face with a group of computer jocks, led by an absurdly young hacker. Gates was not cut from the usual executive pinstripe cloth. He favored chinos and loose-collared shirts and would often show up to meetings without having showered or washed his hair.

Despite vast lifestyle differences, the strange bedfellows inked an agreement in 1980. Microsoft would develop an operating system for IBM's PC, and IBM would pay Microsoft a royalty for each unit sold, without assuming any ownership rights in the operating system. In a development that nobody would have predicted, the arrangement ultimately led to a new order in the computer world. Within a decade, Microsoft would take possession of the dominant position once occupied by IBM.

At the time, however, there was no indication of such great portent. After Gates coolly signed the agreement, he turned to his executive vice president, Steve Ballmer, and nonchalantly said: "Well, Steve, now we can get to work." Gates generally thrived under the pressure of deadlines. But this contract called for Microsoft to deliver a functioning operating system within three months. The company, which had been launched on a premature promise to MITS for the delivery of a version of BASIC for the Altair, had blithely guaranteed IBM the prompt delivery of a product that it had yet to design.

Fortunately, a company called Seattle Computer Products, located just twenty minutes away from Microsoft's headquarters, had already developed an operating system for computers running on the Intel 8086 chip. Seattle Computer considered its system an experiment: the "Quick and Dirty Operating System." Gates knew that Q-DOS, more officially called 86-DOS, could be tailored to run IBM's new machine. It would be a terrific shortcut. After approaching Seattle Computer, Paul Allen negotiated a deal under which Microsoft paid the company $25,000 to license the system to undisclosed end users. (Microsoft was not allowed to divulge to anyone that it was connected with the IBM project.) The following year, two weeks before IBM introduced the PC, Microsoft bought all intellectual and physical rights to 86-DOS from Seattle Computer for $50,000. (The bargain was too good to be true: Seattle Computer later sued Microsoft for further compensation and received almost $1 million in an out-of-court settlement.)

Although it was conceived in secret, the IBM-PC received a lavish public introduction on August 12, 1981, at New York's Waldorf-Astoria Hotel. It was an immediate commercial and technological success. In the first year, over 200,000 people ponied up $1,265 to buy the standard IBM-PC with cassette unit, or $2,235 for the version with a disk drive. And since each machine ran on the MS-DOS operating system, Microsoft had received a $200,000 payment from IBM, in lieu of royalties.

The clause of the IBM licensing agreement that left ownership of MS-DOS in Microsoft's hands proved crucial. Since IBM chose to use parts from other manufacturers rather than design its own hardware, its PC was easily replicated by upstart firms. Just as the TRS-80 superseded the Altair as the acknowledged market leader, and the IBM-PC bypassed the TRS-80, lower-priced IBM-PC clones sapped the market share from IBM. The early leader among the clone makers was Compaq Computer Corporation, which racked up $100 million in sales in 1983, the year it introduced its personal computer. While the clones hurt IBM, they proved a boon to Microsoft. The clones were supposed to be "compatible" with IBM-PCs, and MS-DOS could go a long way toward making them that way.

For once, Gates had misread the future of his business. He had always assumed that Microsoft would stay exclusively in computer languages and applications (or specialized) software, rather than operating systems. But after the launch of the IBM-PC, clone-makers from around the world called to negotiate the right to install MS-DOS in their machines. Gates responded immediately, first, by creating a worldwide sales force to help make sure that MS-DOS became the international standard. (Since the early eighties, countries outside the United States and Canada have accounted for two-thirds of Microsoft sales.) Second, he priced MS-DOS cheaply for installation as original equipment. And third, in an environment in which products became obsolete virtually the minute they were introduced, Gates didn't pause to enjoy the success of the first version of MS-DOS. By the time the IBM-PC was announced, Microsoft was already working on a second version. Consequently, Microsoft found itself with a whole market almost to itself. As the Gates program became the standard, his company consistently provided the operating systems for 80 percent of the PCs sold each year. The company's sales exploded, rising from $16 million in 1981 to $97 million in 1984.

Throughout the spectacular growth of the early 1980s, Gates and Allen micromanaged Microsoft. "In the beginning, our management style was pretty loose, and Paul and I took part in every decision," Gates recalled in 1995. When Paul Allen left the company after a diagnosis of Hodgkin's disease in 1983, Gates was forced to shoulder even more responsibility. Because he had difficulty delegating authority, he continued to set Microsoft's

rigorous pace, often working at his desk from 9:30 a.m. to midnight, fueled by delivered pizza and caffeinated drinks. As Gates wrote in an early memo quoted by his biographers Stephen Manes and Paul Andrews: "Microsoft expects a level of dedication from its employees higher than most companies. Therefore, if some deadline or discussion or interesting piece of work causes you to work extra time some week it just goes with the job."

The complaint was often heard at Microsoft that Gates simply didn't hire enough people to handle the workload. It was as if he thrived on the heroic challenge of doing too much in too little time. Such commitment was required, because the software product cycles kept spinning faster. And while Microsoft was making money, there was never any guarantee that its growth would continue. Exponential growth defied standard planning techniques, and technological shifts blurred reliable forecasts.

By the mid-1980s desktop machines could perform the same functions fast as, and faster than, the computers that had occupied entire rooms decades earlier. The next generation of computers could fit on a person's lap. Gates had watched dozens of start-up companies fall by the wayside after they failed to follow up on a successful breakthrough product. And executives who couldn't maintain a company's spectacular growth were often thrown overboard. An early Gates competitor—and acquaintance—was Steve Jobs, who built Apple into a major computer company. Apple had developed its own hardware and operating systems, which were generally regarded as easier to use than Microsoft's. But since Apple didn't allow its technology to be licensed by clone-makers, it had difficulty gaining a wider audience. Jobs was forced out of his perch in 1985 after the company lost ground to IBM-compatible PCs running on Microsoft's operating system.

Bill Gates wasn't going to be deposed. He had received 53 percent of the stock in Microsoft when it incorporated in 1981, and had matured with the company. In 1986, when Microsoft turned ten, it had 1,500 employees and sales of almost $200 million. Gates, thirty years old, liked to drive fast cars, but didn't care much for the trappings of wealth otherwise, eating fast food for dinner and traveling coach class on airplanes. Touted at the time as the "world's richest bachelor," Gates spent his life at Microsoft.

"The Revolution Is Here and It Is Soft"

In the mid-eighties Microsoft continued to grow. Gates took the advice of veterans in corporate organization and broke the company into product groups. And while he hired professional managers, Gates insisted that every one of them be well-versed in the technical aspects of the product. The company was growing and had to employ thousands of people—just plain *smart* people, according to Microsoft's recruiting practice. Gates remained active in product planning and strategy and kept abreast of progress on scheduled projects. He also became more and more of a public figure, an effective speech-maker and corporate diplomat.

With his extraordinary competitiveness, he was not content merely to enjoy Microsoft's dominance in the market for PC operating systems. He still intended to stake out a hefty share of the market for applications software, packages tailored to common needs, like accounting, word processing, or inventory control. As Gates said in 1980: "The revolution is here and it is soft." In August 1984, as part of the process of reshaping Microsoft, he created separate divisions for the development of operating system software (like MS-DOS and its successors) and applications software. They were called the Platform Group and the Applications and Content Group, respectively.

In 1982, Lotus Development Corporation had introduced the first blockbuster computer spreadsheet program, which was called 1-2-3 and enabled users to perform fairly high-level accounting on the computer. An overwhelming success, it was responsible for enticing many small businesses into buying their first PCs. Soon after, Gates assembled a superb team of software developers and charged them with devising a spreadsheet package to beat Lotus Development's. In 1985, Microsoft introduced Excel 1.0, which was used at first only by Macintosh computers. The company had a chance to improve the product before launching the IBM-compatible version, 2.0,

in 1988. It was called ". . . a work of art," by one reviewer. It simultaneously established itself in the spreadsheet market and bolstered Microsoft's latest operating system, Windows.

As the Applications and Content Group launched other software packages, including the word-processing program Microsoft Word, the Platform Group maintained Microsoft's core product: the IBM-PC operating system. MS-DOS was updated and improved every other year or so. Eventually it would have to be replaced by a new concept. In a divergence from the company's early practice of developing programs in a matter of months, Microsoft spent nearly seven years developing the successor to MS-DOS, dubbed "Windows." The drive to produce Windows wasn't predicated on financial need, for MS-DOS was a remarkably profitable and widely used product. But Gates wanted to create a new model for the IBM and IBM-compatible PC world. "The goal is to turn up the heat and make Windows an even stronger standard than DOS has been," Gates said.

In devising a new operating system, Microsoft tried to reinvent and improve on Apple's highly graphic, easily understood Macintosh system. First introduced in 1987, Windows didn't catch on. When the version for IBM-compatible computers was released the following year, it fared only a little better. The reasons actually meshed with Gates's long-range thinking. He typically aimed his software to be more advanced than the contemporary hardware, knowing that machines would inevitably catch up. Windows worked best with a more powerful computer behind it, but Gates found that IBM was not aggressive about introducing more powerful models. Compaq eventually led the way in popularizing the next step up in computers, the 386. The incompatibility of Microsoft's new software and IBM's hardware highlighted a deeper dilemma: For better or worse, Microsoft's fate was tied to that of IBM. Gates once commented, "It's like we're married or something."

As a matter of fact, the marriage was on the rocks. The two companies had been jointly developing a new operating system called OS/2 to succeed MS-DOS, and the first version was introduced in 1987. When increasing rivalries broke apart the cooperative partnership in 1989, IBM took custody of OS/2 and its further development. Yet, even subsequent versions of OS/2 failed to break the grip of MS-DOS, or block the way for Windows. It was Microsoft that was setting the standard for operating systems, despite IBM's efforts. Clone-makers were eager to install the improved Windows on their machines, and software developers labored to make their programs run on Windows. With the hardware up to date, the system let IBM-PC users deploy a mouse and click on icons and menus, rather than utilize memorized commands. The expanded capability of Windows 3.0 to access memory also let users keep several programs open at once. Projecting its authority, Microsoft spent $10 million to roll out the $150 software package on a promotional red carpet, including a send-off at Manhattan's City Center Theater. It was, Gates said, "The most extravagant, extensive, and expensive software introduction ever." Clone-makers were eager to install the improved Windows on their machines, and software developers labored to make their programs run on Windows. Largely on the strength of the Windows conquest, Microsoft's sales rose from $590.8 million in 1988 to $1.183 billion in 1990.

The business world hadn't seen such an influential technology company since IBM utterly dominated the market from the fifties to the seventies. After 1986, when Microsoft moved to new headquarters in a park setting in Redmond, Washington, it was often called "Big Green," a nod to its assumption of the mantle once worn by Big Blue.

Achieving Market Dominance, But For How Long?

"Can anyone stop Bill Gates?" *Forbes* asked in 1991, when the company's stock market value surpassed that of General Motors. The answer, it seemed, was no. "In the past several years, Gates has leveraged his control over one vital part of the desktop computer business, the operating system for IBM-compatible machines, into a commanding presence in a related field, application software." The only power great enough to stop Microsoft may have been the federal government. Just as Rockefeller's massive Standard Oil suffered the scrutiny of a series of antitrust investigations, Microsoft became the subject of a probe based on its trade practices.

Throughout the industry, Microsoft was a respected, but often controversial, company. Developers of applications software accused it of leaking news of upcoming products to the press, so as to kill off enthusiasm and sales for competing packages. They also intimated that Microsoft's applications developers benefited from knowing what was coming in operations platforms, a charge the company flatly denied. The Federal Trade Commission (FTC) investigation, launched in 1990, centered on Microsoft's policy of forcing licensers to pay royalties for every machine they produced, whether they included MS-DOS or not.

Gates was confident that Microsoft would emerge unscathed. "This thing will come to an end without any problem," he said in 1991. After a thirty-month investigation, the FTC commissioners deadlocked, two votes to two, on whether or not to prosecute. The Justice Department's antitrust unit, in an unprecedented move, took up the investigation. The department considered a range of possibilities that could have included the destruction of Gates's empire. In the end, the government stepped back from engaging Microsoft in full-fledged battle. Instead of trying to bust up the juggernaut, the antitrust division essentially left Microsoft intact, while forcing it to end the controversial licensing practice.

Gates Joins the Network

For a few years, as the Internet exploded, Microsoft remained on the sidelines. But as Americans by the millions began to use their PCs as a communication tool, Microsoft decided to get in on the action.

In early 1995, the company launched its own access service, the Microsoft Network, to rival America On-line. Windows 95, introduced in August of that year, had elements in place that made it easy for users to join interactive computer networks, especially the Microsoft Network. Even more than that, Windows 95 was designed to accommodate future versions that would allow PCs to transmit, as well as to receive, audio and video. To Gates, the interactive world was just that—a world—and no single step would advance it or successfully exploit it.

In December 1995, Microsoft and General Electric (the parent company of NBC Network) joined forces to operate a news network, called MS-NBC. The cable television network, which debuted in July 1996, would share programming with Microsoft Network for computers. The idea was that the viewing public could get their news from either the TV or the computer or from both at once.

Neither Bill Gates nor Jack Welch, the CEO of GE, looked at the partnership as anything but a first step for each in a completely new media. "Business will be done differently," Welch said. "Distribution will be done differently. Who better to hang around with than the company that has done more to change the world than any other?"

Within one year Gates moved Microsoft from the sidelines to the forefront of the interactive revolution. And suddenly he was in television, a fact that was not lost on the wit of Jay Leno, who began one of his monologues with this comment: "I'm the host of The Tonight Show on NBC . . . which stands for Now Bill Compatible.'"

As Microsoft grew in size and scope, Gates changed his style. The one-time micromanager became less hands-on: "Well [at] first, I wouldn't let anybody write any code. . . . That's changed." Instead, he focused on monitoring important projects, acting as the chief strategist, and keeping tabs on the booming company's growing number of ventures. In 1995, with the introduction of Windows 95, Microsoft entered the business of providing Internet access, and in early 1996 it started a television network in conjunction with NBC, called MS-NBC. Gates also found time to write a book, entitled *The Road Ahead,* which contained his vision of technological possibilities.

As Microsoft's shares grew to become among the hottest on the stock market, the value of Gates's stake rose to $18 billion in 1996. Even so, his salary remained relatively low: just $275,000 in salary and $128,000 in bonuses for 1994.

Microsoft is fueled, in part, by its leader's enduring realism. While he may appear to be relentlessly confident, Gates has a strong sense of perspective. "We've done some good work, but all of these products become obsolete so fast. . . ." he told *Forbes ASAP.* "It will be some finite number of years, and I don't know the number—before our doom comes."