



The Long Arc Behind Bill Gates' Wealth

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..... In June of 2008, William Gates Jr. will step down as chief software architect at Microsoft and move more of his time to the foundation named for him and his wife. It is a quasi retirement from Microsoft, not a full retirement. Gates intends to come back now and again to help. His June 2006 announcement made headlines, even though most of us—except those who happen to work there—have only a passing interest in the internal machinations of Microsoft. It gained attention because of who said it.

Bill Gates' life has a unique arc. Gates founded and then managed a company that provides software for personal computers, and, in the process, became unbelievably wealthy, to the tune of \$50 billion at last count. Many others got wealthy along with him, Steve Ballmer and Paul Allen, most notably, but Gates' wealth tops them all, making him comparable to only a small number of other business figures in history—"robber barons" in popular speak—such as Carnegie, Rockefeller, Bell, and Ford.

Gates does not always seem certain how to manage his unique status in society and history. To be sure, a large team of public-relations experts at Microsoft try to build, manage, or modify the message about Bill's talents and views. Yet, he goes off message every so often.

On occasion, one of these public gaffes illuminates the professional side

of Gates' life. My favorite example occurs in volume III of Bob Cringely's movie, *Nerds 2.0.1*. Cringely conducted the interview featured in this part of the film before the Federal Antitrust case had been filed, so Gates is not defensive. Cringely asks him if Microsoft is losing money by giving away its browser, and Gates is relaxed as he answers.

He pauses, smiles, and then, speaking with just a hint of dry humor, says, "Well, nobody ever accused Microsoft of not knowing how to make money." The smiling Gates then exhales in a little involuntary laugh, a response to his own joke. There is nothing suave or planned about it: just a cross between a guffaw and a boyish giggle. After another pause, Gates provides an explanation of how Internet Explorer helps the Windows business. It's interesting, but it seems to dissolve in the revelation of the earlier moment: Gates knows how to make money, and he knows that he knows.

That is a long way of motivating today's question: As Gates' quasi retirement from Microsoft approaches, what judgment should history render about how Bill Gates acquired his wealth?

To be sure, any path to this much wealth involves a combination of considerable luck, skill, and effort. Yet, that platitude is unsatisfying for explaining Gates' wealth. He deserves to be measured by the yardstick applied to history's great robber barons. What

does that yardstick gauge? It examines the difference between fair and foul. A fair path to wealth involves entrepreneurial effort, creating new value while capturing some fraction of it. A path is foul if it involves some something unethical or illegal—that is, if the acquisition of wealth involves breaking rules, either legal ones or important business principles.

Both fair and foul apply to some degree to any individual. The open question concerns how much. In particular, which mattered most in Bill Gates' career, and why? To answer this question, I will recall many stories from his career and interpret the long arc with praise and harshness.

Creating wealth

Did Gates make money by creating value? The answer to this question is not as straightforward as it looks. To be sure, Gates helped found and manage a company that eventually grew into a giant. He helped take it public in 1987, and he has always owned a significant fraction of that company, down to less than 10 percent most recently. His personal wealth appreciated along with the stock.

Why is this not straightforward? Gates did not make money through commercializing one big invention, the way Alexander Graham Bell did, for example. Rather, Microsoft made money by em-

playing Gates' uncommon savvy in the art of software commercialization. Gates made a gazillion little decisions. The strategic and financial benefits accumulated over years, occasionally becoming manifest in a few well-known events, such as the rollout of the Office suite and Windows95.

It is hard to characterize any career after three decades, particularly when it manifests in many decisions, but let me try to touch on some of Gates' most salient managerial traits. Gates repeatedly approached situations with the intent to out-think and out-execute others. In pursuit of that approach, Gates became a devoted student of computer industry business models and lessons from other markets. Using those lessons, he developed strategies that moved beyond the barbershop wisdom of the most sophisticated Silicon Valley salons. Perhaps his greatest inventions in this sense were his business models for software platforms. He invented them before many consultants and business analysts.

His best analyses could be breathtaking in insight and depth. For example, "The Internet Tidal Wave," the May 1995 memo that altered Microsoft's strategy just prior to the browser wars, is an extraordinarily insightful document. The vast majority of CEOs on the planet would have been incapable of writing it if they had been in the same situation. (I do mean this: I circulate that memo in my class to give MBAs an example of what an exemplary executive memo looks like, and to help them appreciate why awake executives work hard to understand markets, even out of school.)

Three predilections lie behind Gates' savvy. First, Gates likes technical topics for their own sake—he taught himself to program and debug DEC's computers when he was a teenager, for example. In addition, Gates draws on an almost unique mix of drive, persistence, and patience when pursuing his goals. For example, he furiously drives himself to learn things he believes he needs to

know, and he will negotiate incessantly until he wins on the points he wants, but he will wait eons for results from investments.

Third, and less appreciated, Gates uses his authority inside his company to teach and to conduct lengthy investigations—that is, to convey a view, address questions and consider them in light of the available facts, and, in many cases, argue back and forth with employees. It seems to be no accident that every longtime Microsoft executive I have ever met can talk intelligently about their market and, more remarkably, about markets around them. It is as if they have taken regular pop quizzes on a wide variety of subjects. The CEO conducts the quizzes, and every manager has passed these quizzes many times.

Gates' preferences manifest in Microsoft's actions in a variety of ways, but one became especially evident early and has reappeared many times: Microsoft's executives learned from experience and, more interestingly, arranged so that they did. For example, many observers recognize that Microsoft often has pursued a "three-version strategy"—that is, its first version of a product experiments, the second responds to feedback, and the third puts together the lessons for a hit. Very few CEOs would authorize that strategy, or could succeed in executing it properly, but Microsoft has done it repeatedly.

All this seemed to meld into a coherent whole in the early 1990s, as several stunning market events unfolded. IBM effectively lost leadership of the PC industry (a long story). Yet, the market did not drift long without a software leader. Out popped Windows 3.0. That was followed by the Office Suite and Windows 3.1, then the announcement and big push for what would become Windows 95. In the interim, Microsoft brought out Encarta, which had a spectacular launch.

It is rare to see any company have such a string of commercial successes. Gates had built something unprecedented

and impressive. Indeed, at about that moment in time, it looked as if Microsoft could (and would) take over virtually any or all software markets it set its mind to address.

Some weaknesses

I should offer some balance to go with the compliments. Gates is not a flawless executive by any stretch.

Gates' greatest strategic weakness arose from his strength—the insistence that Microsoft act "smarter" than others. Companywide tactical actions, no matter how well they are designed, can be executed and coordinated only with centralized strategic decision making. At his own insistence, Gates was at the center of all those decisions, and that came with an obvious and widely reported drawback: He can be difficult to work with on a daily basis.

Over several decades, this yielded predictable results. Gates drove many talented employees to quit—out of frustration with his verbal tirades, over disagreements with some of his policy preferences, and because many of them could not see the point of working so hard after their stock options had appreciated to several hundred million dollars. Microsoft has also managed to keep many of its quality executives too, so the company did all right despite the departures. But, frankly, Gates was simply lucky the personality clashes never came back to bite him in kiss-and-tell scandalous books, or, what would be worse, in the guise of former employees managing competing firms. A few tried (for example, Rob Glazer at Real) and, but for circumstances, might have succeeded in displacing some of Microsoft's businesses.

Centralization also has two broad and well-known drawbacks that do not matter until circumstances expose them: It requires a nearly omniscient strategy team, and it can become a bottleneck on new initiatives. Both of these were potential issues at Microsoft. After all, Gates and his team were only human, and they had no special crystal ball. They

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also were just a little too eager to judge every internal initiative, even after Microsoft had grown awash with money and they could afford to give their talented employees some discretion.

Both weaknesses came home to roost when the commercial Internet diffused, for example. Gates had not authorized any experimental projects in the browsers prior to April 1995, although employees had wanted to undertake some initiatives a year earlier. Gates did not see the value in those initiatives, and the habit of mind inside the firm favored Gates' judgment over anyone else's.

In addition, Gates' strategy team erred in its reading of the technical and commercial trends. So did many others in the commercial computing industry, to be sure, but most corrected course in the fall of 1994. Microsoft did not alter its approach until April of 1995, because the company had to wait for its strategy team to agree to change course—that is, for Bill to change his mind (see, again, "The Internet Tidal Wave").

Let's pause and summarize. On the whole, Gates got some of his wealth using fair means. It was not flawless, but it was not substantially foul by any reasonable definition. As an economist and student of the technology business, I cannot be too critical of an entrepreneur who gets rich by building an organization

that executes well. Indeed, if that was all Gates had done, this would be the end of the essay. But it is not.

Gates got into foul territory because of his insistence that Microsoft attempt to remain self-serving in all its actions. That might sound like a small error until it is stated in proper context: Gates' organization not only got big, but it also took on leadership role in the industry. Yet, after assuming that role, Gates was unwilling to become less self-serving, which is what leading a whole industry requires. His seeming tone-deafness to principles of industry leadership got him into legal trouble, and it lost him admirers.

Taking it from others

Did Gates get part of his wealth by taking it from others? The answer is certainly yes, but so what? Many forms of market competition involve market share moving from one firm to another. The harder question is whether Gates' firm used appropriate tactics or not.

There has been debate on this question for decades, so I do not expect to settle it in one essay. Here is my big theme: Gates' conniving and self-serving thoughtfulness suited him for entrepreneurial settings, not necessarily every setting. When his company took a leadership position, the situation required him to start taking actions appropriate for an industry leader. Yet, he did not change. Although Gates had shown tactical flexibility and intellectual resiliency in the first two decades of his career, his actions indicate that he did not perceive such change as a priority.

To develop this theme, I need to interpret the long arc of Gates' strategic actions. As I said, this will touch on arguments that have simmered for many years.

Let's start with his early years. Many technologists despise Gates for being a commercial opportunist from the outset.

For example, in the fall of 1980, IBM approached Microsoft to supply BASIC for the IBM PC. Then, after failing to secure an operating system from the first company it approached, IBM re-

turned to Gates with that task as well. He agreed to supply the operating system, although he did not bother to tell IBM that he did not have one and he would get it from someone else in the Seattle area—which implies, of course, that Gates simply could have sent IBM to that other person. Instead, he bought the operating system, known as the Quick and Dirty Operating System, or QDOS, retooled it a bit, and resold it to IBM as the Disk Operating System, or DOS. Microsoft did not make much profit on the resale, but Gates did the deal because he seems to have had a strategic sense, even then, that the contract would seed a favorable market position.

Methinks the technologists do protest too much. This was ethically ambiguous behavior—no Boy Scout could earn a badge this way. More precisely, a little white lie and convenient silence supported personal gain in the face of a lucky opportunity. At the same time, extenuating circumstances make it easy to explain and partially excuse the behavior. Many others would have muffed the same opportunity had they gotten it (indeed, the provider of the CP/M operating system did, which is why IBM asked Gates).

In addition, Gates was a reasonable choice for supplier. To be sure, his company had only several dozen employees and he was young and uncertified (for example, lacking a college degree), but, lucky for Gates, that was not unusual in the PC market at the time. He also already had extraordinary technical competence at that age, and IBM's people had put him through enough tests to see it. In retrospect, he deserves some respect for recognizing the opportunity and being foresighted enough to take advantage of it. That is how entrepreneurial business works.

Many technologists also despise Gates for imitating Apple's look and feel in Microsoft's products. To this, I initially give the same answer as above: It was ethically ambiguous behavior, not a clear foul. Apple had an opportunity to dom-

inate the industry and muffed it (a long story). In contrast, Microsoft implemented many of the good ideas in commercially relevant ways. If that was not enough, there was also a lawsuit about whether the imitation was illegal, and the courts sided with Gates. Once again, we should give Gates his due for building an organization that executed so well when others did not.

From these stories, it is a short leap to the thing most technologists really resent—that is, Microsoft imitated ideas other companies had pioneered and implemented them in ways that were more commercially successful, but the pioneers never got paid for their contributions. For example, the Office Suite, comprising Excel, Word, and PowerPoint, borrowed lessons and design innovations from others, such as Lotus, WordPerfect, or Harvard Graphics, not to mention some applications for the Macintosh. The same is true of Access, Outlook, and several other modules.

To this, I give almost the same answer as above. Being commercially successful in this way is not a clear foul. It is a common occurrence in young markets—albeit, it is rare to see it at this scale. It would be a foul in the Netscape case, but it was more than the imitation alone that was the issue. (A full explanation is coming.)

Moreover, it is hard to recall against the haze of whining that followed later, but the vast majority of developers rather liked what Microsoft was doing for much of the early 1990s. Users did,

too. That was when Microsoft implemented another one of its most valuable innovations, the application programming interface, or API, in Windows 3.0. It helped turn the third version of Windows into the kind of blockbuster platform that Apple or IBM would have had if either of them had implemented the same feature and developed an organization to support it (another really long story).

Was the idea for APIs new? Of course not. It had been discussed in computer science for ages, and others had tried related things. Windows 2.0 also experimented with a simple attempt (a long story). The real challenge involved going from blackboard to implementation in a functioning organization where revenue needed to exceed cost. This was precisely the type of activity Gates was good at leading. Did Microsoft make APIs work better than anybody had ever forecast? Yes, in part because in 1989 the company was a competent provider of software tools, and in part because the company implemented APIs in a platform that carefully respected backward compatibility with investments made by users and developers, building a de facto standard into a core piece of a platform on which the whole industry could move forward. We should give Microsoft its due for doing things well.

Was there anything illegal about APIs? No, not until the company put APIs on steroids, supporting an even greater range of applications in Windows 95.

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While that implementation would be valuable for many others in the industry, the company also started to cross the line by initiating actions that set up too many controlling quid pro quos for the use of their APIs.

You did read correctly. The problems started to emerge at the height of Microsoft's commercial success. Strategic continuity caused part of the problem. Some of what might have been ethically ambiguous when Gates was an entrepreneur was a foul coming from an industry leader. Yet, Gates did not act as if he worried about it. He did not act as if he appreciated that industry leadership required any major adjustments.

That will take another column to fully explain.

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The Long Arc Behind Bill Gates' Wealth, Part 2

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..... Did Bill Gates acquire most of his wealth by fair means or foul? Last issue's column examined the 1980s and early 1990s and largely saw fair actions. A few fell on the border. Today I ask about the mid-1990s and beyond.

What a period this was for Gates. The diffusion of the Internet required a redirection of numerous Microsoft activities. Gates had the skills to lead such an organizational renewal, and he did. Those actions were impressive.

The Internet also raised numerous challenges to Microsoft's market dominance. In protecting that dominance, Gates was accused of committing many fouls. These also were impressive, albeit in an infamous way.

The details make for a rich story behind a wealthy man.

Competitive meritocracy

A competitive meritocracy governs the high-tech markets. All firms have the right to compete to supply any user in any market. No firm has an exclusive right to supply a market or to avoid challengers in perpetuity. Any firm can enter with a new product if it believes it has something customers might want. Yet, most newcomers experience failure, which leads to wasted resources. To be sure, experimentation by firms in a competitive meritocracy can create quite a mess.

The mess, however, yields a dynamic benefit: Unfettered experimentation

leads to innovative entrants. Incumbents react, or, even better, anticipate the entrant and innovate before the entrants get very far. This leads to lower prices and better products. Users ultimately benefit.

Gates himself entered as an entrepreneur in the competitive meritocracy in PCs. He became a hero to many by taking IBM down a peg. By the mid 1990s, however, the shoe was on the other foot. His firm had become a leading incumbent.

As CEO of a large leading firm, Gates made it a part of his regular routine to scan the actions of entrepreneurs and new markets. The Internet and the World Wide Web began to attract considerable attention around 1994, and so Gates did his homework—in the spring of 1994 and again in the late fall.

This is where it gets interesting. Gates confidently dismissed the browser business as unlikely to be profitable, and he did not change his mind until the spring of 1995. By then, many developers had decided that Netscape, which had the leading browser, would make a good business partner.

Netscape's rise alarmed Gates for two reasons: First, Netscape's browser had a good chance of becoming pervasive. Second, Netscape built application programming interfaces (APIs) for other applications. That meant Netscape's browser could someday soon do the

same thing as Gates' operating-system business, which was extremely lucrative.

In the summer and fall of 1995, Gates pushed for a big Internet initiative. In December, Microsoft announced its Internet strategy.

This sequence of events illustrates what a competitive meritocracy can do. A successful software firm, Microsoft, had taken one direction until a start-up demonstrated the viability of another.

Alas, users did not experience unfettered experimentation for long. It was soon disrupted by Gates, who disliked where the experimentation might lead. That is where the fouls arose.

Contracting fouls

Gates sought to move Netscape's business partners exclusively to Microsoft APIs. One way to do that involved reducing the pervasiveness of Netscape's browser.

Gates pressed his staff to call every important firm delivering Internet services and building its pieces. Firms were offered deals to promote Microsoft's browser and simultaneously make it difficult for Netscape to distribute its browser. Virtually every one of these firms reached a deal with Microsoft in 1996 or '97.

Some assemblers, such as Dell, cooperated early and readily. Without any fanfare, Dell just stopped putting Net-

scape's browser on its systems, even when users asked for it (a fact pointed out in US Senate hearings, much to Michael Dell's embarrassment). Nontrivially, Dell had previously received favored status from Microsoft in preferential pricing and promotions for the operating system, and it continued to get that too.

Other firms, such as Compaq, took a painful route to cooperation. Compaq's management had heard from many users who wanted Netscape's browsers. As a reward for listening to its customers, Compaq received far rougher treatment from Microsoft than had Dell. In 1996, for example, Microsoft sent a letter to Compaq threatening to cut off its license for the operating system (in 30 days!) over an audit dispute that could and should have been settled by arbitration. It seemed obvious to everyone in the industry that Microsoft was reminding Compaq (and all watchers) that it was not a preferred business partner. Compaq capitulated on the audit dispute quickly, and a few months later on its browser policies as well.

Gates also pressed his employees to forge deals with Internet service providers and independent software vendors to make Internet Explorer the default browser, and to make Netscape's less visible. Most of those eventually cooperated.

Only AOL played hardball, which it could do because what it chose for its default settings could move "browser usage share" for a large set of online users. Accordingly, AOL received the best deal of all. Along with hundreds of millions of dollars, it got the key item that Steve Case had held out for—the right to have AOL's branded buttons on every desktop. Why was Microsoft in a position to trade position on the desktop? Stated simply, such was the power of Microsoft's contract restrictions on assemblers.

Gates pressed everywhere, even at Apple. The newly returned Steve Jobs cut a deal to make Internet Explorer the

default browser. Jobs preferred boos from his loyal buyers than the irritation of—and delays from—the provider of some of the Macintosh's valuable software applications. Witness, once again, Redmond's negotiating leverage.

This simultaneous manipulation of many parts of a distribution channel erected numerous roadblocks and basically made it a hassle for Netscape to distribute its browser to the typical mass-market user. No mass-market application software firm had ever put up with so much during its early life.

More to the point, the manipulation restricted user choice, and for reasons that had nothing to do with the products' merits and functionality. That is not how the competitive meritocracy is supposed to work. It departed from the ideal process because one heavy-handed CEO altered it to his advantage.

In brief, it was a foul.

Designing against the wave

It is usually not a foul to add functionality to a product without charging users for it. This is a favor to users. Microsoft did this favor by adding Internet functionality to a range of its products. These favors received notice and deserved praise, but were overshadowed by other design fouls.

Perhaps because it was so heavy handed, the most publicly discussed action was the bolting of Internet Explorer to the operating system. In fact, Microsoft committed no foul in adding this functionality—only in making it impossible for users or suppliers to remove Internet Explorer when they wanted to do so. This was an unnecessarily restrictive design and a transparently self-serving departure from prior practice.

Another example, perhaps less well known, illustrates the foul far better: what Gates did to Java. In brief, Sun Microsystems invented a computer language for networking, called Java, and wanted to do some experimentation with developers and users. Gates signed a contract with Sun, as if Microsoft

intended to make Windows compatible with Sun's preferred version of Java. However, not long after the ink was dry, Microsoft took actions designed to confuse users and developers about what was possible, slowing down everyone.

Later in court, there was a reductionist legal debate about whether Gates negotiated with Sun in bad faith. That is, did Gates misrepresent his firm's intentions to carry through on the contract? The answer seems to be plainly "yes" to a nonlawyer like me, given that Gates planned his actions in advance. The defense responded with a technically reductionist view that Microsoft's version of Java was an improvement and other versions of Java lacked sufficient functionality to dent the Windows monopoly. Hence, the alleged foul had to be inconsequential.

Both reductionist arguments miss the forest for the trees. Gates cared about Java's promise in the future to deliver services on the desktop, much as he worried about Netscape's browser. He did not want that bud to blossom.

More to the point, every established firm, ambitious entrepreneur, and venture capitalist in the country watched these events in disgust and got the message: If Gates didn't like where their experimentation might lead and he could do something about it, he would. Originality, technical potential, or user benefits did not matter.

In brief, that too was a foul.

Why act?

It was historically ironic that Gates subverted the principles behind the very system that had made him wealthy. By the norms of the competitive meritocracy, his actions were beyond disappointing. They were rather appalling.

Many appalling things in life are nonetheless legal, and Gates was never a fool about legal limits. Gates' lawyers did their homework, making sure each contract went to the boundary of appropriate contract law.

That did not get him out of the woods, however.

Antitrust law includes many arcane details, but at a broad level it is straightforward. Antitrust law makes it illegal for a dominant firm to use its negotiating leverage to gain an advantage when it competes for a new market. This is supposed to encourage a dominant firm to compete with new products and services rather than with negotiating leverage.

Here, Microsoft was at risk. Gates was using Microsoft's negotiating leverage with a variety of market participants to further its interests in Internet markets. Moreover, Microsoft was perfectly capable of innovating without using that leverage.

However, government lawyers did not just come out and accuse Gates of committing fouls. Rather, in 1996 and throughout 1997, government lawyers raised questions about whether Microsoft was abiding by a settlement that the firm and the government had reached in 1994 over antitrust issues in Microsoft's contracts with assemblers (a long story).

The issues differed in terms of details. As one case bled into another, however, the issues became confused and confounded. Rather than sort these out and negotiate a new settlement, Gates instructed his lawyers to respond aggressively (another long story). This defiance dared the government lawyers to fight back, which they did.

Allow me the benefit of hindsight to explain the new core issue with some reflective distance. Here is why the government lawyers cared so much: How much did users lose from shorter market experimentation? The answer depends on how much the fouls shortened competitive outcomes, and what would have happened in a longer series of events. Specifically, competition began petering out in 1997, when Microsoft's fouls drew developers away from Netscape's and Java's APIs to Microsoft's. Competition then collapsed in 1998, when developers abandoned Netscape's altogether.

I know sensible people who think competition would have continued indefinitely in the absence of the fouls. Just for illustration, consider the possibility of experimentation having continued for just a couple more years—while the Internet continued to diffuse to new users, or until the dot-com bubble burst, whichever you like.

The two fewer years of experimentation yielded two losses. First, users never experienced what would have been invented had developers lived longer with a cooperative business partner such as Netscape. Instead, everybody just gave up trying to experiment in ways that raised Redmond's ire. Remember, the late 1990s was an era of easy money and the biggest venture-capitalist-led entry boom in the history of computing, so there would have been quite a lot of experimentation—at least three more rounds of browser upgrades and complementary inventions in security, search, identity protection, and stuff I cannot imagine.

Second, users also did not experience what Microsoft would have done had it possessed a sense of competitive urgency. Because Gates' motives were defensive and reactive, Microsoft slowed several of its Internet initiatives once Netscape's coalition collapsed. For example, Internet Explorer went years without another upgrade. Developers also were stuck, and many complained, but they had nowhere else to go.

To be fair, this is much easier to say with hindsight than it was in 1998, when the losses were mostly prospective. It was especially difficult for government lawyers because Gates' lawyers boldly declared innocence. Both could not be right. A legal confrontation was inevitable.

The trial

The trial involved many eye-opening revelations and spectacles. The first occurred at Gates' deposition.

Depositions are normally perfunctory, boring legal events. This was anything but that. It went very badly for Gates.

Under the cold light of hard questions, the lead prosecutor, David Bois, reduced Gates to human proportions. It was almost shocking to see an executive who had unquestioned authority at his own company become defensive and vulnerable in a setting he did not fully control.

More to the point, Bois made Gates sound internally inconsistent. Gates denied his firm had market power, and he denied recalling e-mails that clearly showed that he fully comprehended his negotiating advantages with business partners. Bois made it appear that Gates lived in his own world, effectively deploying market power while denying its existence when convenient.

During the actual trial, it just got worse for Microsoft. Although the trial was complex and involved many sideshows, any spectacle made headlines. In particular, one subpoenaed memo and e-mail after another revealed the self-serving (as well as coarse!) language that characterized Microsoft's internal debates.

The adverse publicity led to tons of collateral damage to Gates' public image. News commentators wondered if the company's internal culture had any sense of restraint. Many prior business partners wondered whether their deals had been enacted in good faith. It further inspired the open-source movement (which already treated Gates as a bogey man). By association, it tinged many legitimate activities, reducing the value of years of brand building.

Making a long story short, the prosecution eventually achieved its principal legal goal. It persuaded the presiding judge, Penfield Jackson, that management had the intent and means to alter the competitive process in its favor, and that it did so. Indeed, Microsoft lost rather badly in Jackson's rulings.

Microsoft's legal defense team next aimed its efforts at reversing the judgment before an appellate court. Long story short again, under the circumstances Microsoft's lawyers did rather well, winning on some points and losing

others. They also got the court to place some limits on the range of punishment Microsoft could receive.

Yet, by losing just a little, Gates lost in a big way. The appellate court did not conclude that Microsoft's actions fell outside the domain of antitrust law. It *did* find that Microsoft had market power and had misused it.

I am not shy about saying that I believe this trial's outcome was good for the long-term health of high-tech markets in the United States. Had Gates won the trial, other powerful executives would have been tempted to adopt Gates' strategic playbook for limiting the experimentation of others. I believe society is better off without such self-serving limitations.

As for whether the trial undid the fouls in this particular market, however, I must highlight ambiguity. Although Microsoft did not escape punishment altogether, it did avoid severe punishment. That happened through a sequence of highly unlikely events.

It turned out that Judge Jackson had acquired Judge Ito disease—he gave long, frank interviews to reporters during the trial. Though the interviews made for entertaining reading (Jackson thought Gates needed a comeuppance), they were published prior to the appeals court's final judgment. The appellate court severely reprimanded Jackson for breaching protocol (another great read), sending the open legal questions, including the determination of the eventual punishment, back to another judge.

That was quite fortunate for Gates. Any other judge would be better for Microsoft's prospects.

Another factor then played a role. The new Bush administration had no appetite to fight this case further, but initially could not act on those predilections without inviting very bad publicity. However, after the horror of 9/11 provided motivation and/or cover, the new lead prosecutor negotiated a settlement with minimal bite, and, after some tussle, got the new judge to approve it.

The new judgment did one thing well: It made it far more difficult for Microsoft to claim legality for questionable tactics and defer a trial for a long time, something Gates had effectively done in the past. Now all complaints were heard quickly by a court or a court-appointed committee.

Unfortunately, since the market had already moved on, there was not much to adjudicate.

Fast-forward to the present

Gates' career could not be the same after the trial. He had become singularly associated with the questionable behavior at the center of the firm's legal problems.

Gates gave up his CEO position and moved to a newly created position, Chief Software Architect. Steve Ballmer became CEO. The reasons were never fully explained in public, but I would guess that—after the finger-pointing stopped—even Gates' friends in Microsoft thought this was a way for the firm to move forward, at least on a symbolic level.

Thereafter, Gates continued to engage in firm decision making, and I have sometimes wondered how Ballmer could take the executive reins with Gates potentially contributing as he always had. The situation must have placed strains on their friendship and working relationship.

The case left the news after 2001—except for periodic stories involving Ballmer settling every private antitrust case Microsoft faced. The private suits in the US cost over \$4 billion, a small fraction of Microsoft's cash on hand. As of this writing, Microsoft is still negotiating with the European Union, so the final bill is not in.

Ballmer has changed some practices, although it is unclear whether the court's oversight or the rise of open-source tools motivated the changes. For example, in the summer of 2007, Microsoft announced the "Windows Principles," which is Microsoft's written promise to behave in a predictable way

toward developers. This is a good policy, albeit late in coming.

Make no mistake: The old Microsoft would not have adopted this policy. For example, Google experimented with a search bar in the standard desktop installation. I believe the old Microsoft would have taken action against Google with the release of Vista, but, after some prodding, the new Microsoft stuck with principled actions. I salute Redmond for it. Users benefited from the experiment. I hope to see more principled action in the future.

While all this was happening, Gates set aside a large fraction of his wealth for charity, aiming the organization primarily at ending worldwide disease. In a surprising gesture, Warren Buffett pledged to move a big chunk of wealth into the same organization, making it the wealthiest nonreligious nonprofit organization on the globe.

This fast-forwards us to the present moment: Gates wants to devote more time and energy to this organization. These choices will send Gates' life in a new and unambiguously positive direction.

What if?

There is one enormous irony in the long arc of Gates' managerial career. His temperament, savvy, and intellectual breadth are qualities that would have made him an extraordinary serial entrepreneur, founding one organization after another. Yet, the road he traveled was quite different: continual employment at a single firm for over 30 years.

That ultimately led to new types of challenges in a corporate setting and the singular tragedy of Gates' career. He tried to retain the unqualified self-serving approach that had worked so well for him as an entrepreneur, even when the actions of a dominant firm required a different touch.

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