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POP!

Netscape vs. Microsoft, AOL + Time Warner and the Nuclear Winter

Careful readers will notice that in all this talk about the dot-com frenzy, there hasn't been a single mention of the original dot-com company: Netscape. That's because even before the dot-com bubble was properly inflated to its greatest extent, Netscape had ceased to be an important player in events as they unfolded.

Netscape actually tallied impressive revenue growth in its first ten quarters as a public company.[1] It was, for a time, the fastest-growing software company in history, going from zero to half a billion in revenues in three years.[2] But that growth papered over the internal problems that later revealed that Netscape as a company was confused about its ultimate strategy. Netscape had IPOed as a software company: it developed web browser software that consumers and businesses ostensibly paid to use. At the time of its IPO in 1995, fully 90% of the company's revenues came as a result of its stand-alone Navigator web browser.[3]

But then came Microsoft and Internet Explorer. So, Netscape pivoted to service corporate customers with commerce servers and Intranet servers. By 1997, the percentage of Netscape's revenue generated by the stand-alone browser was below 20%.[4] The only problem with that state of affairs was that selling to corporations required a traditional, corporate-style salesforce. From 15 salespeople in 1995, Netscape's sales army ballooned to almost 800 people by 1997, and sales and marketing costs ate up about 47% of revenue.[5] From the

nimble and efficient “new-style” software company that Marc Andreessen and Jim Clark had told the press Netscape was destined to be, the company actually evolved into the very thing it had once ridiculed: a lumbering and inefficient “old-style” software and services firm.

“I absolutely thought we were a software company—we build software and put it in boxes, and we sell it,” Marc Andreessen said in May 1998. “Oops. Wrong.” The Netscape that had kicked off the Internet Era was now Netscape, the many-headed hydra, groping desperately for any business model it could find. “We’ve completely changed,” Andreessen said.[6]

The irony was that the very company that had announced to the world that there were riches to be found on the Internet couldn’t find a reliable way to make money on the Internet. After ten quarters of growth, Netscape’s revenue suddenly dropped by 17% in the fourth quarter of 1997. In January of the next year, the company reported a quarterly loss of $88 million and laid off 300 of its 2,600 employees.[7] After reaching an all-time high in early 1996, by 1998, when the Yahoos and eBays of the world were entering the stratosphere, Netscape’s stock was languishing below its IPO price.[8]

The question was, did Netscape stumble, or was it pushed? In October 1998, Microsoft’s Internet Explorer passed Netscape’s Navigator (later called Netscape Communicator) in browser market share.[9] Each new version of Internet Explorer released copied features that Navigator had pioneered, and then added features that Navigator didn’t have. Microsoft usurped the browser market by giving away its browser for free. And more than free, there were instances where Microsoft was essentially paying valuable partners—Internet service providers, computer manufacturers—to favor IE over Navigator. Netscape, the smaller company by far, couldn’t afford to give away its browser. The whole reason that Netscape tied itself in knots trying to reinvent its business model was that it knew it couldn’t match Microsoft’s deeper pockets when it came to competing in the stand-alone browser market.

In a last-ditch effort to shore up market share, Netscape released the source code to its browser on a website called Mozilla.org in January 1998. *The Economist* magazine said that this move was “the computer-industry equivalent of revealing the recipe for Coca-Cola.”[10] This open-source browser project would later evolve into the Firefox web browser, which would, in the 2000s, eventually take the market-share crown back from Internet Explorer. But it did nothing for Netscape at the time. By February 1998, Netscape’s stock was down by half from its IPO, and 88% off its all-time high.[11]

In a bit of asymmetrical warfare, Netscape had, very early on, turned to the federal government in an attempt to gain some sort of relief from Microsoft's predations. It sure as heck seemed to Netscape like Microsoft was leveraging its operating system monopoly to kill the market for web browsers. On August 12, 1996 (the same day that Microsoft shipped Internet Explorer version 3.0), Netscape sent a letter to the U.S. Department of Justice, claiming that Microsoft was wielding Windows 95 like a cudgel, preventing Netscape from doing deals with vendors and manufacturers that would allow the company to protect its place in the market. On October 20, 1997, the Department of Justice announced that it was investigating Microsoft for violation of a previous consent decree, and in May 1998 the attorneys general of twenty states joined the DOJ in filing antitrust suits against Microsoft.

The ensuing Microsoft trial was like a bonfire-of-the-vanities-style sideshow playing out in the background during the headier months of the dot-com bubble. Running from October 1998 to November 1999, the trial provided plenty of entertainment for those in the technology industry who both feared Microsoft and were jealous of it. The trial uncovered over 2 million emails, memos and other materials from within Microsoft, Netscape, and even other companies, such as AOL and Apple.[12] The government focused largely on proving that Microsoft had strong-armed companies into shunning Netscape, such as when AOL was induced into double-crossing Netscape over its default browser, and when computer manufacturers were cajoled into removing Netscape's Navigator as a preinstalled option.

The trial was intensely embarrassing to Microsoft executives, who, time and again, were contradicted by their own emails and previous statements. Not even Bill Gates was immune. The government played hours of a videotaped deposition from Gates, showing him sparring with the government's lead attorney, David Boies. Gates came off as dissembling, petulant, even petty. Like Bill Clinton's famous testimony dispute over what "the meaning of the word 'is' is," Gates argued over the characterization of basic words in his own emails. He denied remembering meetings and claimed to forget details about strategy—things that no person with a passing knowledge of the way Gates managed Microsoft could believe. Gates denied seeing Netscape as a serious competitive threat, in direct contradiction to previous public statements.

When the judge, Thomas Penfield Jackson, finally delivered his decision in the case, it was the verdict that Microsoft's enemies had been hoping for for years. Judge Jackson found Microsoft guilty of violating U.S. antitrust laws. Microsoft had "maintained its monopoly power by anticompetitive means and

attempted to monopolize the Web browser market."[13] The suggested remedy: Microsoft should be broken up into two separate companies: one that developed and sold operating systems, and another that developed and sold applications like web browsers.

Of course, it never ended up that way. The case was appealed: the original verdict was rejected; and by the time the new Bush administration took office in 2001, there was little appetite for continuing what could be seen through a partisan lens as "antibusiness" litigation. Microsoft was never broken up, instead eventually agreeing to a Department of Justice settlement that required Microsoft to open its APIs and protocols, and generally play nice with competitors in the near future. Critics saw this as little more than a slap on the wrist.

With the benefit of twenty years, it's easy to look back on the Microsoft antitrust trial and even the whole Netscape/Microsoft web browser war as a bit of a tempest in a teapot. After all, we now know that Microsoft was about to enter something of a "lost decade" during which its influence on the industry would wane and the company would come to be seen by many as almost an irrelevant force as technology evolved. Indeed, Microsoft's diminished stature over the course of the 2000s would seem to validate one of the company's key claims during the trial itself: that the technology industry is so dynamic, so competitive, that no player, no matter how dominant in one market or at one point in time, can really be thought to be monopolistic. Because, in the blink of an eye, that entire market could change thanks to the arrival of new competitors or new technologies.

But from another perspective, it's worth wondering how much the flowering of the dot-com era was enabled by the fact that the most dominant, rapacious player in the industry was distracted while the new era was taking shape. The fact is, while Microsoft made plenty of moves during the dot-com era (MSN, Expedia, Hotmail, WebTV, just to name a few), it largely refrained from engaging in direct combat with the major dot-com players. More important, Microsoft never had the chance to absorb any of the cream of the new crop, as it had shown it was wont to do in earlier technology eras. Microsoft never attempted to acquire Amazon, say, though it certainly had the money to do so early on. And, crucially, once the dot-com bubble burst, Microsoft was in no position to swoop in and gobble up the wounded survivors because it feared angering the government again.

In short, it's easy to see, especially based on recollections that have come out from ex-Microsofties, that the antitrust trial hobbled Microsoft strategically, and maybe even creatively. "It had a big impact, and even a decade later it was still

having an impact," Mary Jo Foley says of the antitrust trial. A journalist who followed Microsoft through the 1990s and 2000s, Foley argues that after the trial, no matter what product or feature it looked to develop, Microsoft had to think about legal issues first.[14] And so, one must consider to what degree Microsoft was distracted by the trial, allowing it to miss, say, the development of paid search as a dynamic new market, or the rise of social networks as an entirely new paradigm.

This is not to suggest that Microsoft was unsuccessful in the 1990s. On December 30, 1999, Microsoft reached its peak market cap of $618.9 billion.[15] This was due in large part to the fact that the 1990s was the decade that truly saw computing go mainstream. In 1990, there were around 9.5 million PCs sold in the United States. By the year 2000, that number had increased to 46 million annually.[16] Considering that around 90% of those machines were running Microsoft Windows and Office, no one was crying for Microsoft. In that same year, 2000, PC penetration in U.S. households passed 50% for the first time.[17] The web revolution helped normalize computing and Microsoft rode this wave as much as any dot-com. But the end result of the trial was that, going forward, Microsoft was merely another passenger; it was no longer steering the wave's direction.

IF MICROSOFT'S HEGEMONY over the tech industry was broken by the end of the decade, the only meaningful casualty of this structural earthquake was Netscape. The antitrust trial was, of course, not designed to save the fortunes of Netscape; the parties involved in the trial were the U.S. government and Microsoft. Netscape was just the star witness, the primary victim. And by the end of the trial, Netscape was not even an independent party anyway. On November 24, 1998, America Online announced it was purchasing Netscape for $4.2 billion in stock.

It was painful for many involved with Netscape that the pioneering web company couldn't overcome Microsoft's might. But the fact that Netscape ended up swallowed by AOL, the "training wheels for the Internet," seemed especially ignominious. "I mean, OK . . . Microsoft? A worthy opponent!" says original Netscape engineer Aleks Totic. "Did they fight fair? No, they did not. But . . . it's understandable. Now, being in a market where Netscape got sold to AOL? That was just depressing."[18] Most of the original Netscape team left the company rather than join AOL. Marc Andreessen briefly stayed on as AOL's chief technology officer, but he also left within a year, to form a new startup with fellow Netscape refugee Ben Horowitz. For his part, Netscape's other

cofounder, Jim Clark, was already ensconced in his third billion-dollar startup, Healtheon (later, WebMD), which enjoyed one of those 292% first-day pops when it IPOed in February of 1999.

The Netscape folk might have looked down their noses at AOL (AOL never got much respect from true techies in Silicon Valley), but by 1998, their jaundiced view was not shared by Wall Street. AOL was how around 40% of U.S. users got online.[19] It was the most popular ISP in America—all the more so after it acquired its oldest rival, CompuServe, in September of 1997.[20] By the end of 1999, AOL would surpass 20 million subscribers.[21] At any given moment, especially in the evenings, as many as 1.1 million Americans were logged in to AOL.[22] And what so impressed Wall Street was that AOL was not only one of the few profitable Internet companies—by the height of the dot-com era, it had become a *really* profitable company. At the end of its fiscal year 1999, AOL could boast cash flow of $866 million dollars on revenue of $4.8 billion.[23] *Fortune* put Steve Case on its cover under the headline "Surprise! AOL Wins."[24] As the 1990s came to a close and Microsoft was distracted by its trial, it seemed to many in the industry that if there was any company that might be the heir to Microsoft's throne, it was AOL.

AOL had those 20 million Americans paying $21.95 a month to log in—a nice, steady stream of reliable revenue—but also had learned a new trick: advertising. By 1999, the company was generating $1 billion a year just in ecommerce and revenue deals—more than ESPN and ESPN2 combined.[25] Analysts were predicting that by 2003 AOL would generate more ad revenues than ABC or CBS.

No company took greater advantage of the bubble madness than AOL, by straight-up cannibalizing other dot-coms. You might remember that the Drkoop.com IPO raised $85 million for the health-information website. A month after its stock market debut, Drkoop turned around and basically spent all that money by agreeing to pay AOL $89 million over four years to provide health content to AOL users.[26] And that wasn't even the biggest deal AOL struck in those days. A long-distance phone provider named Tel-Save ponied up $100 million.[27] AOL skillfully played one competitor off another: Barnes & Noble paid $40 million to be the bookselling partner on AOL's online service; Amazon paid $19 million just to be on the AOL.com portal; in the midst of fending off auction competition from Amazon, eBay ponied up $75 million for a four-year auctions exclusive. And Wall Street rewarded such tie-ups. Tel-Save's shares leapt from $13 to $19 after announcing its deal; Drkoop.com's deal

announcement caused its stock to surge 56%.[28]

Locking down guaranteed traffic from AOL became a box that dot-coms had to check in order to begin the Get Big Fast sweepstakes. And as AOL realized the position of power it had over the dot-coms, the deal-making only got more aggressive. In 1998, the dot-com startup N2K tried to land a $6 million agreement for the privilege of being AOL's premier music retailer when, in the midst of negotiations, its executives let slip that they were in a hurry to close the deal ahead of N2K's forthcoming IPO. AOL promptly jacked the price of the deal up to $18 million, which represented more than ten times N2K's annual revenue.[29] N2K didn't even flinch. It paid the $18 million rather than risk a busted IPO.

AOL became so proficient at doing these deals, so rapacious, in fact, that it gained a reputation for aggressiveness that, until recently, only Microsoft had enjoyed. AOL's army of deal-makers were known internally as the company's "hunter-gatherers," because they descended on the dot-coms like predators and made them offers they couldn't refuse. As one anonymous dot-com executive remembered AOL's tactics, "For weeks it was, 'You're great, you're great, you're great,' and then one day [we had to] give them every last dollar we had in the bank and 20 percent of our company." Another dot-commer said AOL demanded 30% of her company, "and then for good measure they tell us, 'These are our terms. You have 24 hours to respond, and if you don't, screw you, we'll go to your competitor.' "[30]

In essence, AOL leveraged its "platform" of eyeballs and dial-up customers in the same way that Microsoft had leveraged its operating system. And burnishing this reputation as the 800-pound gorilla of the dot-com market was very lucrative for the company. In the era of skyrocketing valuations, no other Internet company soared as high as AOL did. Over the course of the 1990s, AOL's stock appreciated 80,000%.[31] By 1999, its market cap would reach $149.8 billion, and that same year AOL became the first Internet company added to the S&P 500 index, taking the place of the century-old Woolworth Corporation.[32] AOL was worth more than Disney, Philip Morris, or even IBM; it was worth more than General Motors and Boeing *combined*.[33]

But the gorilla had a problem.

It was no secret to anyone in the tech industry that the days of dial-up modems were numbered. The long-promised dream of broadband—web browsing at speeds thirty times faster than the 56,000 bits per second that was state-of-the-art for AOL's millions of users—was just around the corner. And the biggest issue for AOL was the inconvenient reality that cable companies

the biggest issue for AOL was the inconvenient reality that cable companies were in the best position to deliver this new era of connectivity. AOL had achieved ubiquity by piggybacking on the government-regulated copper wires of the staid, century-old telephone network. Unlike on the phone lines, AOL could not expect to get common carriage on cable networks. AOL's bread and butter—being America's ISP of choice—was careening rapidly toward extinction, and everyone inside the company knew it. By doing deals with almost every player in the space, the gorilla had access to everyone's financials, and could see (even before the press caught on) that many dot-coms were close to running out of money.

So, as the dot-com party lurched to its climax, AOL, more than anyone else, knew it was time to find a seat before the music stopped. Fortunately, AOL had one very big ace in the hole: its soaring stock. It could use its gargantuan market cap to buy another company—any company, but preferably one with valuable long-term assets—in order to make up for the inevitable shortfall that would come when dial-up users jumped to broadband. As early as December 1998, internal AOL emails show that Steve Case and his lieutenants began kicking around the idea of purchasing a safe lily pad to land their company on. AOL came very close to acquiring eBay, but Case was wary of doubling down on the Internet space. A merger with AT&T was floated as a way for AOL to claim direct ownership of distribution pipes, but Ma Bell declined. After approaching Disney and getting rebuffed by its CEO, Michael Eisner, AOL turned its focus to arguably the biggest media company in the world: Time Warner. A deal with Time Warner would allow AOL to marry its new media savvy to the toniest of old-media content. Aside from its numerous, tangible and lucrative assets (magazines, TV channels, movie studios and more) Time Warner had one key piece of the puzzle that AOL craved: the second-largest cable network in the country.

Time Warner, of course, was the one big media company that had taken the Internet seriously from the very beginning—and it had hundreds of millions of dollars in losses to show for it. Its CEO, Jerry Levin, was the man who had bankrolled the expensive, doomed Full Service Network and Pathfinder experiments. In spite of these high-profile failures, Levin remained a true believer in technology's ability to transform the distribution of content.

Especially given the way it all turned out, many have painted the AOL/Time Warner merger as a smash-and-grab job: savvy Internet punks swooping in and taking advantage of clueless old-media types. In some sense, it's hard *not* to see the merger as a cynical ploy for AOL to cash in on its market cap before its business model collapsed. But, from another angle, Steve Case probably made

the most rational move on behalf of his shareholders. “We all knew we were living on borrowed time and had to buy something of substance by using that huge currency,” one AOL executive said later.[34] “We didn’t use the term bubble,” said another exec. “But we did talk about a coming ‘nuclear winter.’ ”[35]

And from the perspective of Time Warner? As the great tech journalist Kara Swisher said, if Time Warner got conned, “it was clear it was a con that the victim was very much in on.”[36] By 1999, when Internet stocks were worth more than gold, and when new phenomena like Napster were driving home the lesson that web technologies could be existentially threatening to old media companies and their distribution models (more on Napster in a later chapter), how could it have felt like anything other than a coup for Time Warner to team up with the ostensible king of the web? By marrying AOL, Time Warner would insulate itself against the Internet’s disruption.

At the time it was announced to the world, the merger of $164 billion AOL and $83 billion Time Warner seemed like nothing less than the triumph of the New Economy. “This is a historic moment in which new media has truly come of age,” Steve Case told the stunned financial press. “We are going to be the global company of the Internet age.”[37] Case vowed that one day AOL Time Warner would have $100 billion in revenue and a $1 trillion market cap. And for the moment, there was no reason to disbelieve him. For all the talk of the deal being a “merger of equals,” AOL shareholders would control 56% of the company and Time Warner shareholders, 44%.[38] The reality was, AOL had bought Time Warner. An Internet upstart had taken over a decades-old media giant with five times its revenue.[39]

The entire business world was shocked by the deal. “Let’s be clear,” Silicon Valley venture capitalist Roger McNamee said. “This is the single most transformational event I’ve seen in my career.”[40] Music industry executive Danny Goldberg said the merger “validates the Internet and vindicates the value of content.”[41] The definitive book on the merger, *There Must Be a Pony in Here Somewhere*, was written by Kara Swisher some years after the deal was consummated. In it, she claims that, at the time, the merger seemed like a home run to her and nearly everyone else: “In one major move, the two companies had seemingly addressed their weaknesses and intensified their strengths. I won’t deny I really believed that, as did many others—many of whom now pretend they never did.”[42]

The AOL/Time Warner merger was announced on January 10, 2000. On April 3, 2000, Judge Jackson’s final ruling suggesting the breakup of Microsoft

was announced. At the time, these two events felt epochal—clarion signals ushering in a new era in the technology and even media industries.

Instead, from the perspective of hindsight, they look more like historical footnotes, bracketing the weeks when the dot-com bubble finally burst.

FOUR DAYS AFTER the AOL/Time Warner merger announcement, on January 14, 2000, the Dow Jones Industrial Average peaked at 11,722.98, a level it would not return to for more than six years. The tech-heavy Nasdaq peaked on March 10, 2000, at 5,048.62, a level it would not reach again until March 2015. From that March 2000 peak, all the way down to the trough it reached on October 9, 2002 (the bear market bottom would be 1,114.11), the Nasdaq would lose nearly 80% of its value.

Was there any one thing that pricked the dot-com bubble? Of course not. There were a myriad of factors that all accumulated to bring about the end of irrational exuberance. For one thing, the Fed had finally begun to raise interest rates: three times in 1999 and then twice more in early 2000, the most sustained round of fiscal tightening over the whole of the late 1990s. And just as suddenly, the language from the Fed had shifted to an open attempt to rein in equity prices. Added to this was the fact that the Internet cheerleaders were changing their tune as well. One by one, Wall Street analysts began advising their clients to lighten up on Internet stocks, saying that the technology sector was "no longer undervalued."[43] But more than anything else, it was the weak constitution of all those "iffy" dot-coms that had hit the market toward the tail end of 1999 that tipped the scales. These were companies without a realistic chance to make money over the long term. Many, perhaps most, had merely been cynical plays to go public and then hope more money could be raised later to keep them afloat.

The crash had myriad victims, but a few can stand for the many. Webvan burned through more than $1 billion before declaring bankruptcy in July 2001.[44] Pets.com had the ignominious distinction of liquidating a mere 268 days after its February 2000 IPO.[45] It closed its first day of trading at $11, the same price at which it had gone public—no first-day pop. The next week of trading saw it down at $7.50.[46] eToys went out of business after ringing up $274 million of debt. Once valued at $10 billion, its liquidators couldn't even line up bidders for the $80 million warehouse system it had built.[47]

By April, just one month after peaking, the Nasdaq had lost 34.2% of its value.[48] Over the next year and a half, the number of companies that saw the

value of their stock drop by 80% or more was in the hundreds. By August of 2001, eTrade was down 84% from its all-time high. SportsLine was down 99% (trading at 91 cents). And for most, no recovery ever came, even for the biggest names. Priceline had cratered 94%. Yahoo was down 97%, from an all-time high of $432 per share to $11.86 on August 31, 2001, its market cap down to $6.7 billion from $93 billion. That $1,000 put into Amazon's IPO, which had climbed in value to more than $61,000 at the bubble's height, was worth about $3,400 at the end of September 2001, when Amazon was trading under $6.

There are various ways to measure the amount of wealth that was annihilated when the bubble burst. As early as November 2000, CNNFN.com pegged the losses at $1.7 trillion.[49] But of course, that would only count public companies. The amount of money lost to dot-coms that went bankrupt before IPOing or getting acquired would push the calculation of losses higher still. Beyond the public companies, it's estimated that 7,000 to 10,000 new online enterprises were launched in the late 1990s, and by mid-2003, around 4,800 of those had either been sold or gone under.[50] Many trillions of dollars in wealth vanished almost overnight. Obviously that amount of money leaving the playing field had to have some effect on the economy overall. The U.S. government would date the start of the subsequent dot-com recession as beginning in March 2001. By the time of the economic shock from the terrorist attacks of September 11, 2001, there was no longer any doubt. That tragic month of September, for the first time in twenty-six years, not a single IPO came to market.[51]

The dot-com era was over.

"If you had asked me two years ago, does this dot-com thing make any sense, I would have said, no, the bubble will burst," George Shaheen, Webvan's CEO, told the *New York Times* shortly before Webvan went under. "But I didn't have any idea of the blood bath that would ensue."[52] Shaheen, whose Webvan stock options were once worth $280 million, saw the value of his paper wealth shrink to $150,000 by the time he quit the company.[53]

Perhaps most emblematic of this epic turn in fortune is the story of TheGlobe.com. Founded by two undergraduates at Cornell University in 1995, TheGlobe was a community site, allowing things such as personal homepages, much like GeoCities, Angelfire and Tripod did. It had decent early user growth, reaching 14 million hits a month and 30,000 subscribers by 1996.[54] And, most important, it had young, baby-faced, photogenic twenty-something cofounders, Stephan Paternot and Todd Krizelman.

By 1997, the site was adding 100,000 users per month.[55] This sort of growth

attracted the attention of Alamo Rent A Car founder Michael Egan, who invested $20 million. Paternot and Krizelman moved the company's operations to New York City and plunged into the hype-and-party machine that was already in full swing. By late 1998, with revenues of only $2.7 million (and losses of $11 million), TheGlobe.com seemed to be another promising dot-com, ready for its time in the spotlight.

TheGlobe enjoyed what was perhaps the quintessential IPO of the dot-com era. Going public on Friday, November 13, 1998, priced at a cautious $9 a share, Bear Stearns, the underwriters of the stock, discovered that there was suddenly a 45-million-share demand for the 3 million shares TheGlobe was selling.[56] When the stock opened in the morning, the first trade took place at $87 a share. TGLO reached an intraday high of $97 before closing at $63.50. It was the largest single-day IPO pop in history—605.6%. Sixteen million shares traded hands during the day, meaning the 3 million shares of TGLO available to the public were bought and sold on average five times that day. This was, of course, the smart money selling out. "I sold my TGLO at 88—who wouldn't?" one hedge fund manager told TheStreet.com.[57] The headline in the *New York Post* would later read, "Geeks Make $97 Million."[58] Paternot and Krizelman were twenty-four years old.

TheGlobe had executed on the dot-com era playbook perfectly.

Except . . .

On the second day of trading, TheGlobe.com's stock fell to $48.

Within a week, it was down to $32.

Over the course of 1999, TGLO would rise and fall with the rest of the Internet stocks, briefly bouncing to almost $80. But, quite literally, it was all downhill from there. Toward the end of 1999, the price was down, under $10.

TheGlobe was—perhaps from the beginning—a company with dubious long-term prospects. For a company that needed gobs of traffic to ever have a chance of making money, it never really competed with the big boys, only peaking at 34 in the list of the most trafficked websites in the world.[59] Because of this "second-tier" status, TheGlobe never had the chance to be acquired like GeoCities and even Tripod were. In an era when an electronic greeting card company like BlueMountain could be snapped up for its 9 million unique visitors a month, TheGlobe was only averaging 2.1 million.[60] Plastering banner ads at the top of every page in order to make money was never a sustainable strategy, especially when the online ad market began to crash by the end of 1999. GeoCities and Tripod were safe under their parent company umbrellas, so

who would ever know if they were just as unprofitable? Meanwhile, at publicly traded TGLO, the whole world could see that, even in a good quarter, like the three months ending March 31, 2000, when TheGlobe.com saw revenues more than double, to nearly $7 million, it nonetheless recorded a net loss of $16.4 million.[61] Just by being in business, doing the thing its business plan said it had intended to do, TheGlobe was losing more than $2 for every $1 it brought in.

There are plenty of people, both today and at the time, who view TheGlobe as designed merely to IPO, make its investors and bankers rich, and then—nothing more. Whether or not that was the case, for one brief, shining moment, it was the hottest stock, the most exciting company in the world.

And then, it was a laughingstock.

By the spring of 2001, TheGlobe.com was trading at 8 cents a share. Paternot and Krizelman were forced out of their own company long before then.

When TheGlobe.com was delisted from the Nasdaq on April 23, 2001, its final trading price was 16 cents.

OF COURSE, THE DOT-COM ERA didn't end disastrously for everyone. According to numbers subsequently published by *Barron's*, between September 1999 and July 2000, insiders at dot-com companies cashed out to the tune of $43 billion, twice the rate they had sold at during 1997 and 1998.[62] In the month before the Nasdaq peaked, insiders were selling twenty-three times as many shares as they bought.[63] The most famous example from this era is Mark Cuban, perhaps the quintessential dot-com billionaire. Cuban had already cashed out early by selling his company, Broadcast.com, to Yahoo. But he didn't trust the insane valuation of the Yahoo stock he had been paid in, so he set up a hedge against his Yahoo holdings, called an "options collar." When Yahoo's stock subsequently collapsed, his entire fortune was protected. "He probably extracted more from the initial Internet bubble than anyone else," the hedge fund manager and author James Altucher said of Cuban.[64]

Compare Cuban's story to that of Toby Lenk, founder of eToys, who saw his paper fortune of $600 million wither away because he refused to bail out on his company's stock.[65] Is there any great nobility in Lenk's determination to go down with his ship versus Cuban's astute decision to get out when the getting was good? Probably not. Or consider Paternot and Krizelman, who in May of 1999, when TheGlobe stock was still at $20 a share, sold 80,000 shares and 120,000 shares for roughly a combined $4 million (original investor Michael

Egan sold TheGlobe shares worth more than $50 million).[66] Paternot, Krizelman and Egan did nothing ethically or legally wrong. In fact, they played by the rulebook of a crazy game that was largely foisted upon them. But one does wonder about other people who had a stake in TheGlobe.com. Those hundreds of employees, say, who had been granted stock options and imagined themselves to be rich the day of TheGlobe's IPO. Or what about the potentially tens of thousands of investors who bought shares of TheGlobe.com for $87 on IPO day? When did they sell? And at what price?

What we can say definitively is that we know who ended up holding the bag as the bubble exploded: average investors. Over the course of the year 2000, as the stock market began its meltdown, individual investors continued to pour $260 billion into U.S. equity funds. This was up from the $150 billion invested in the market in 1998 and $176 billion invested in 1999.[67] Everyday Americans were the most aggressive investors in the dot-com bubble[68] at the very moment the bubble was at its height—and right at the moment the smart money was getting out. According to *Barron's* journalist Maggie Mahar, by 2002, 100 million individual investors had lost $5 trillion in the stock market. Bloomberg News has estimated the damage at $7.41 trillion.[69] A Vanguard study showed that by the end of 2002, 70% of 401(k)s had lost at least one-fifth of their value; 45% had lost more than one-fifth.[70]

A lot has been made in the last several years about income inequality and how gains made in the overall economy tend increasingly to go to the top 1%, while the rest are left with scraps. At the time of this writing, there is a lot of talk about how the American public, especially the middle and working classes, have come to believe the economic structure of America is rigged against them, and everything is tilted in favor of the insider, the moneyed, the elite. An argument can be made that this was a belief that first took hold when the dot-com bubble burst, especially to a generation of investors who came to the stock market for the first time in those years. Baby boomers did what society told them: they invested in stocks; they bought and held. And for a time, they did well, seeing their nest eggs go up by five, even six, figures (or more if they were lucky). And then they watched it all evaporate. They watched the insiders and the bankers, the lucky and the elite, walk away scot-free while they, the hardworking Americans who did what they were told, lost everything. And all of that would happen to them *again* less than a decade later, only this time, in the housing market.

The bursting of the dot-com bubble was the opening act of our current economic era, and the repercussions from that bubble's aftermath are still with

us today, economically, socially, and especially politically.

Middle-aged investors weren't the only ones to lose out, of course. A whole generation of workers who had staked their careers on the transformative dream of technology were suddenly, almost en masse, unemployed. It was later estimated that between 2001 and early 2004, Silicon Valley alone lost 200,000 jobs.[71] A whole generation of young people had, in the space of a decade, gone from being young upstarts who "got it," to masters of the universe who seemed to be transforming the world, to completely redundant.

There were some engineers and secretaries at various companies who were lucky enough to cash out some stock options at the right time and probably walked away with enough money to pay off student loans, put a down payment on a house, or maybe pocket a cool million or two. But those were the early or the lucky. The vast majority, the tens or maybe hundreds of thousands who flooded into tech in the bubble era, now found themselves without even a severance package because their pre-IPO company was bankrupt.

The hangover from this comeuppance is what still haunts the tech industry today. Even now when young entrepreneurs talk glowingly about how their technology will change the world, in the back of any Internet entrepreneur's mind is the Icarus-like cautionary tale of the dot-com bubble's implosion, as well as a fear that someday they too will be exposed for their hubris.

Marc Andreessen would later say of the bubble and its aftermath: "A lot of big companies in 2000, 2001, 2002, breathed a massive sigh of relief, and said 'Oh! Thank God that Internet thing didn't work! Stick a fork in it, it's done. Everybody knows the dot-com thing was a bubble. That was a joke. It's over. So, now we don't have to worry about it.' "[72]

American industry need look no further than the example of AOL Time Warner to assure themselves that it had all just been a grand delusion. A multitude of books have been written about the monumental culture clash that ensued when the AOL cowboys invaded the halls and boardrooms of Time Warner. Certainly, dysfunctional infighting and managerial malfeasance were in large part responsible for what conventional wisdom has collectively agreed was the worst merger of all time. There were charges of accounting fraud and dirty dealing directed at the AOL side, but the ultimate failure of the combination was really a result of the collapse of AOL's advertising business. Over the course of 2000 to 2002, all those deals AOL did with dot-com companies unwound, as the dot-coms themselves went belly-up. Slowly, AOL dial-up subscriber numbers, which peaked at 26.7 million in 2002, dwindled away, as Americans shifted over

to broadband connections with DSL companies or to cable ISPs like Time Warner Cable's own Road Runner Internet service.[73] As early as 2003, Time Warner dropped "AOL" from its corporate name.[74] By that point, Steve Case and most of the rest of the AOL cowboys had been pushed out of the company. But also by that point, AOL Time Warner had been forced to announce two of the biggest losses in American history: $54 billion in 2002 and $45.5 billion in 2003, both write-downs of the inflated value of AOL's market cap that was now proven to have been illusory.[75] Corporate America assured itself that it had been right all along: there was little money to be made on the Internet, and the evaporation of the biggest Internet player of them all seemed proof positive.

MANY OBSERVERS of the dot-com bubble have found it instructive to compare it to earlier bubbles like the tulip mania in seventeenth-century Holland or the South Sea Company's collapse in eighteenth-century London. But it's the example of the railroads in Britain in the 1840s that's the most analagous.

Railways were cutting-edge in the 1840s. As with the dot-coms, there was a period of about three or four years when Britons experienced a mad rush to invest in business schemes surrounding this new technology. Eight hundred miles of new railways were floated for development in 1844. Two thousand eight hundred and twenty miles of new track were proposed in 1845. A further 3,350 miles were authorized in 1846. Because the British Parliament had to pass legislation approving each new railway scheme, the railway bills passed by Parliament provide an amusing analogy to the IPOs of the dot-com period. Forty-eight railway acts were passed by Parliament in 1844, and 120 in 1845. At the height of the mania, the capital required to fund these schemes came to £100 million, and by 1847, investment in the railways represented 6.7% of all national income.[76]

In his book *Fire and Steam: A New History of the Railways in Britain*, historian Christian Wolmar describes a frenzy that sounds eerily familiar:

> As the supply of finance appeared almost endless, with more and more people eager to jump on the "get rich quick" bandwagon, unscrupulous fraudsters entered the fray, pushing schemes whose only aim was to deprive investors of their savings. For example, investors were being sought for schemes whose sole purpose was to pay the bills on previous projects drawn up by the same promoters. While such utterly fraudulent schemes were few, there were many more in which investors lost their

money because the economics were as shaky as their prospectuses were woolly.

The inevitable bust came because, in Wolmar's words, the bubble was ultimately based on "little more than optimism feeding on itself," and it was pricked in part by the Bank of England raising interest rates.[77] The aftermath of the bubble feels similar to the aftermath of the dot-com fiasco, albeit with a Victorian tinge:

> A contemporary chronicler reckoned "no other panic was ever so fatal to the middle class. . . . There was scarcely an important town in England what [*sic*] beheld some wretched suicide. It reached every hearth, it saddened every heart in the metropolis. . . . Daughters delicately nurtured went out to seek their bread. Sons were recalled from academies. Households were separated; homes were desecrated by the emissaries of the law."[78]

But what Wolmar's account also points out is to what degree the bubble, and the railroads constructed because of it, ultimately created the infrastructure that would enable the high Industrial Revolution in Victorian Britain. The mileage of rail schemes authorized during the bubble years came to represent 90% of the total route mileage on Britain's rail system. "The vast majority of the railways constructed in these years survive today as the backbone of the [UK rail] network," Wolmar writes.[79]

The bubble made possible the British Empire at its economic height. People never stopped riding trains. Businesses never stopped shipping goods over them. The railways never went away, even after the investment mania did. The lesson of the dot-com bubble is similar. Of course, the dot-coms went away. Of course, AOL—for one brief shining moment, the embodiment of the Internet in American life—went away. But the *Internet itself* didn't go away. And that's why the railway example is so pertinent.

All of the money poured into technology companies in the first half decade of the Internet Era created an infrastructure and economic foundation that would allow the Internet to mature. And I mean that in a tangible, physical way. During the dot-com bubble, there was a similar, less publicized bubble in telecommunications companies. *This* estimated $2 trillion bubble ended in a similar bloodbath with the well-publicized bankruptcies of companies like WorldCom and Global Crossing.[80] But before the bubble burst, between the

years 1996 and 2001, telecom companies raised $1.6 trillion on Wall Street and floated $600 billion in bonds to crisscross the country in digital infrastructure (the banks collected more than $20 billion in fees for their troubles, far more than they had gotten from the dot-com IPOs).[81] These 80.2 million miles of fiber optic cable represented fully 76% of the total base digital wiring installed in the United States up to that point in history.[82] What did this mean, ultimately? Well, it meant that for the coming years, the literal infrastructure that would allow for the maturation of the Internet was in place. And because of a resulting glut of fiber (the telecoms had overextended themselves just as disastrously as the dot-coms, thus the bankruptcies) in the years after the dot-com bubble burst, there was a severe overcapacity in bandwidth for Internet usage that allowed the next wave of companies to deliver sophisticated new Internet services on the cheap. By 2004, the cost of bandwidth had fallen by more than 90%, despite Internet usage continuing to double every few years.[83] As late as 2005, as much as 85% of broadband capacity in the United States was still going unused.[84] That meant as soon as new “killer apps” were developed, apps like social media and streaming video, there was plenty of cheap capacity allowing them to roll out to the masses. The tracks, as it were, had already been laid.

And people didn’t suddenly stop surfing the web. Many have made the case that the dot-com era was doomed to failure simply because there were too many companies chasing what at the time were too few users. When the bubble burst in 2000, there were only around 400 million people online worldwide. Ten years later, there would be more than 2 billion (best estimates peg the current number of Internet users at 3.4 billion).[85] In the year 2000, there were approximately 17 million websites. By 2010, there were an estimated 200 million (today, that number is over a billion).[86] In 2000, a company like Yahoo could claim a $128 billion market cap because it was tallying 120 million unique visitors a month.[87] A decade later, Yahoo would boast a global monthly audience of 600 million.[88] Amazon might have flirted with insolvency after the bubble burst, but the company has seen its revenue increase every year of its existence, even in the worst years of the bubble’s aftermath. Amazon’s revenue in 2000 was $2.8 billion. Ten years later, it would be $34.2 billion.[89]

Far from being a fad, the habits Americans acquired during the bubble era ingrained themselves into the rhythms of everyday life. The dot-coms, the training wheels for the Internet, the pioneers, they all taught us to live online. We all might have jumped from dial-up to broadband, but few of us quit using the net. There was no going back.

And even as the dot-com companies were crashing and burning, there were

And even as the dot-com companies were crashing and burning, there were already new innovators on the scene who would move the Internet forward in an entirely new, entirely personal, and (finally) exceedingly profitable way.