

JEFF BEZOS AND THE AGE OF AMAZON

BRAD STONE

the **everything** store

JEFF BEZOS AND THE AGE OF AMAZON

BRAD STONE



Little, Brown and Company New York Boston London



Begin Reading
Table of Contents

Photos

Newsletters

Copyright Page

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For Isabella and Calista Stone

When you are eighty years old, and in a quiet moment of reflection narrating for only yourself the most personal version of your life story, the telling that will be most compact and meaningful will be the series of choices you have made. In the end, we are our choices.

—Jeff Bezos, commencement speech at Princeton University, May 30, 2010

In the early 1970s, an industrious advertising executive named Julie Ray became fascinated with an unconventional public-school program for gifted children in Houston, Texas. Her son was among the first students enrolled in what would later be called the Vanguard program, which stoked creativity and independence in its students and nurtured expansive, outside-the-box thinking. Ray grew so enamored with the curriculum and the community of enthusiastic teachers and parents that she set out to research similar schools around the state with an eye toward writing a book about Texas's fledgling gifted-education movement.

A few years later, after her son had moved on to junior high, Ray returned to tour the program, nestled in a wing of River Oaks Elementary School, west of downtown Houston. The school's principal chose a student to accompany her on the visit, an articulate, sandy-haired sixth-grader whose parents asked only that his real name not be used in print. So Ray called him Tim.

Tim, Julie Ray wrote in her book *Turning On Bright Minds: A Parent Looks at Gifted Education in Texas*, was "a student of general intellectual excellence, slight of build, friendly but serious." He was "not particularly gifted in leadership," according to his teachers, but he moved confidently among his peers and articulately extolled the virtues of the novel he was reading at the time, J. R. R. Tolkien's *The Hobbit*.

Tim, twelve, was already competitive. He told Ray he was reading a variety of books to qualify for a special reader's certificate but compared himself unfavorably to another classmate who claimed, improbably, that she was reading a dozen books a week. Tim also showed Ray a science project he was working on called an infinity cube, a battery-powered contraption with rotating mirrors that created the optical illusion of an endless tunnel. Tim modeled the device after one he had seen in a store. That one cost twenty-two dollars, but "mine was cheaper," he told Ray. Teachers said that three of Tim's projects were being entered in a local science competition that drew most of its submissions from students in junior and senior high schools.

The school faculty praised Tim's ingenuity, but one can imagine they were wary of his intellect. To practice tabulating statistics for math class, Tim had developed a survey to evaluate the sixth-grade teachers. The goal, he said, was to assess instructors on "how they teach, not as a popularity contest." He administered the survey to classmates and at the time of the tour was in the process of calculating the results and graphing the relative performance of each teacher.

Tim's average day, as Ray described it, was packed. He woke early and caught a seven o'clock bus a block from home. He arrived at school after a twenty-mile ride and went through a blaze of classes devoted to math, reading, physical education, science, Spanish, and art. There was time reserved for individual projects and small group discussions. In one lesson Julie Ray described, seven students, including Tim, sat in a tight circle in the principal's office for an exercise called productive thinking. They were given brief stories to read quietly to themselves and then discuss. The first story involved archaeologists who returned after an expedition and announced they had discovered a cache of precious artifacts, a claim that later turned out to be fraudulent. Ray recorded snippets of the ensuing dialogue:

"They probably wanted to become famous. They wished away the things they didn't want to face."

"Some people go through life thinking like they always have."

"You should be patient. Analyze what you have to work with."

Tim told Julie Ray that he loved these exercises. "The way the world is, you know, someone could tell you to press the button. You have to be able to think what you're doing for yourself."

Ray found it impossible to interest a publisher in *Turning On Bright Minds*. Editors at the big houses said the subject matter was too narrow. So, in 1977, she took the money she'd earned from writing advertising copy for a Christmas catalog, printed a thousand paperbacks, and distributed them herself.

More than thirty years later, I found a copy in the Houston Public Library. I also tracked down Julie Ray, who now lives in Central Texas and works on planning and communications for environmental and cultural causes. She said she had watched Tim's rise to fame and fortune over the past two decades with admiration and amazement but without much surprise. "When I met him as a young boy, his ability was obvious, and it was being nurtured and encouraged by the new program," she says. "The program also benefited by his responsiveness and enthusiasm for learning. It was a total validation of the concept."

She recalls what one teacher said all those years ago when Ray asked her to estimate the grade level the boy was performing at. "I really can't say," the teacher replied. "Except that there is probably no limit to what he can do, given a little guidance."

In late 2011, I went to visit "Tim"—aka Jeff Bezos—in the Seattle headquarters of his company, Amazon.com. I was there to solicit his cooperation with this book, an attempt to chronicle the extraordinary rise of an innovative, disruptive, and often

polarizing technology powerhouse, the company that was among the first to see the boundless promise of the Internet and that ended up forever changing the way we shop and read.

Amazon is increasingly a daily presence in modern life. Millions of people regularly direct their Web browsers to its eponymous website or its satellite sites, like Zappos.com and Diapers.com, acting on the most basic impulse in any capitalist society: *to consume*. The Amazon site is a smorgasbord of selection, offering books, movies, garden tools, furniture, food, and the occasional oddball items, like an inflatable unicorn horn for cats (\$9.50) and a thousand-pound electronic-lock gun safe (\$903.53) that is available for delivery in three to five days. The company has nearly perfected the art of instant gratification, delivering digital products in seconds and their physical incarnations in just a few days. It is not uncommon to hear a customer raving about an order that magically appeared on his doorstep well before it was expected to arrive.

Amazon cleared \$61 billion in sales in 2012, its seventeenth year of operation, and will likely be the fastest retailer in history to surpass \$100 billion. It is loved by many of its customers, and it is feared just as fervently by its competitors. Even the name has informally entered the business lexicon, and not in an altogether favorable way. *To be Amazoned* means "to watch helplessly as the online upstart from Seattle vacuums up the customers and profits of your traditional brick-and-mortar business."

The history of Amazon.com, as most people understand it, is one of the iconic stories of the Internet age. The company started modestly as an online bookseller and then rode the original wave of dot-com exuberance in the late 1990s to extend into selling music, movies, electronics, and toys. Narrowly avoiding disaster and defying a wave of skepticism about its prospects that

coincided with the dot-com bust of 2000 and 2001, it then mastered the physics of its own complex distribution network and expanded into software, jewelry, clothes, apparel, sporting goods, automotive parts—you name it. And just when it had established itself as the Internet's top retailer and a leading platform on which other sellers could hawk their wares, Amazon redefined itself yet again as a versatile technology firm that sold the cloud computing infrastructure known as Amazon Web Services as well as inexpensive, practical digital devices like the Kindle electronic reader and the Kindle Fire tablet.

"To me Amazon is a story of a brilliant founder who personally drove the vision," says Eric Schmidt, the chairman of Google and an avowed Amazon competitor who is personally a member of Amazon Prime, its two-day shipping service. "There are almost no better examples. Perhaps Apple, but people forget that most people believed Amazon was doomed because it would not scale at a cost structure that would work. It kept piling up losses. It lost hundreds of millions of dollars. But Jeff was very garrulous, very smart. He's a classic technical founder of a business, who understands every detail and cares about it more than anyone."

Despite the recent rise of its stock price to vertiginous heights, Amazon remains a unique and uniquely puzzling company. The bottom line on its balance sheet is notoriously anemic, and in the midst of its frenetic expansion into new markets and product categories, it actually lost money in 2012. But Wall Street hardly seems to care. With his consistent proclamations that he is building his company for the long term, Jeff Bezos has earned so much faith from his shareholders that investors are willing to patiently wait for the day when he decides to slow his expansion and cultivate healthy profits.

Bezos has proved quite indifferent to the opinions of others. He is an avid problem solver, a man who has a chess grand master's view of the competitive landscape, and he applies the focus of an obsessive-compulsive to pleasing customers and providing services like free shipping. He has vast ambitions—not only for Amazon, but to push the boundaries of science and remake the media. In addition to funding his own rocket company, Blue Origin, Bezos acquired the ailing Washington Post newspaper company in August 2013 for \$250 million in a deal that stunned the media industry.

As many of his employees will attest, Bezos is extremely difficult to work for. Despite his famously hearty laugh and cheerful public persona, he is capable of the same kind of acerbic outbursts as Apple's late founder, Steve Jobs, who could terrify any employee who stepped into an elevator with him. Bezos is a micromanager with a limitless spring of new ideas, and he reacts harshly to efforts that don't meet his rigorous standards.

Like Jobs, Bezos casts a reality-distortion field—an aura thick with persuasive but ultimately unsatisfying propaganda about his company. He often says that Amazon's corporate mission "is to raise the bar across industries, and around the world, for what it means to be customer focused." Bezos and his employees are indeed absorbed with catering to customers, but they can also be ruthlessly competitive with rivals and even partners. Bezos likes to say that the markets Amazon competes in are vast, with room for many winners. That's perhaps true, but it's also clear that Amazon has helped damage or destroy competitors small and large, many of whose brands were once world renowned: Circuit City. Borders. Best Buy. Barnes & Noble.

Americans in general get nervous about the gathering of so much corporate power, particularly when it is amassed by large companies based in distant cities whose success could change the character of their own communities. Walmart faced this skepticism; so did Sears, Woolworth's, and the other retail giants of each age, all the way back to the A&P grocery chain, which battled a ruinous antitrust lawsuit during the 1940s. Americans flock to large retailers for their convenience and low prices. But at a certain point, these companies get so big that a contradiction in the public's collective psyche reveals itself. We want things cheap, but we don't really want anyone undercutting the mom-and-pop store down the street or the locally owned bookstore, whose business has been under assault for decades, first by the rise of chain bookstores like Barnes & Noble and now by Amazon.

Bezos is an excruciatingly prudent communicator for his own company. He is sphinxlike with details of his plans, keeping thoughts and intentions private, and he's an enigma in the Seattle business community and in the broader technology industry. He rarely speaks at conferences and gives media interviews infrequently. Even those who admire him and closely follow the Amazon story are apt to mispronounce his surname (it's "*Bay*-zose," not "*Bee*-zose").

John Doerr, the venture capitalist who backed Amazon early and was on its board of directors for a decade, has dubbed Amazon's miserly public-relations style "the Bezos Theory of Communicating." He says Bezos takes a red pen to press releases, product descriptions, speeches, and shareholder letters, crossing out anything that does not speak simply and positively to customers.

We *think* we know the Amazon story, but really all we're familiar with is its own mythology, the lines in press releases, speeches, and interviews that Bezos hasn't covered with red ink.

Amazon occupies a dozen modest buildings south of Seattle's Lake Union, a small, freshwater glacial lake linked by canals to Puget Sound on the west and Lake Washington on the east. The area was home to a large sawmill in the nineteenth century and before that to Native American encampments. That pastoral landscape is now long gone, and biomedical startups, a cancer-research center, and University of Washington School of Medicine buildings dot the dense urban neighborhood.

From the outside, Amazon's modern, low-slung offices are unmarked and unremarkable. But step inside Day One North, seat of the Amazon high command on Terry Avenue and Republican Street, and you're greeted with Amazon's smiling logo on a wall behind a long rectangular visitors' desk. On one side of the desk sits a bowl of dog biscuits for employees who bring their dogs to the office (a rare perk in a company that makes employees pay for parking and snacks). Near the elevators, there's a black plaque with white lettering that informs visitors they have entered the realm of the philosopher-CEO. It reads:

There is so much stuff that has yet to be invented.

There's so much new that's going to happen.

People don't have any idea yet how impactful the Internet is going to be and that this is still Day 1 in such a big way.

Jeff Bezos

Amazon's internal customs are deeply idiosyncratic. PowerPoint decks or slide presentations are never used in meetings. Instead, employees are required to write six-page narratives laying out their points in prose, because Bezos believes doing so fosters critical thinking. For each new product, they craft their documents in the style of a press release. The goal is to frame

a proposed initiative in the way a customer might hear about it for the first time. Each meeting begins with everyone silently reading the document, and discussion commences afterward—just like the productive-thinking exercise in the principal's office at River Oaks Elementary. For my initial meeting with Bezos to discuss this project, I decided to observe Amazon's customs and prepare my own Amazon-style narrative, a fictional press release on behalf of the book.

Bezos met me in an eighth-floor conference room and we sat down at a large table made of half a dozen door-desks, the same kind of blond wood that Bezos used twenty years ago when he was building Amazon from scratch in his garage. The door-desks are often held up as a symbol of the company's enduring frugality. When I first interviewed Bezos, back in 2000, a few years of unrelenting international travel had taken their toll and he looked pasty and out of shape. Now he was lean and fit; he'd transformed his physique in the same way that he'd transformed Amazon. He'd even cropped his awkwardly balding pate right down to the dome, which gave him a sleek look suggestive of one of his science-fiction heroes, Captain Picard of *Star Trek: The Next Generation*.

We sat down, and I slipped the press release across the table to him. When he realized what I was up to, he laughed so hard that spit came flying out of his mouth.

Much has been made over the years of Bezos's famous laugh. It's a startling, pulse-pounding bray that he leans into while craning his neck back, closing his eyes, and letting loose with a guttural roar that sounds like a cross between a mating elephant seal and a power tool. Often it comes when nothing is obviously funny to anyone else. In a way, Bezos's laugh is a mystery that has never been solved; one doesn't expect someone so intense and

focused to have a raucous laugh like that, and no one in his family seems to share it.

Employees know the laugh primarily as a heart-stabbing sound that slices through conversation and rocks its targets back on their heels. More than a few of his colleagues suggest that on some level, this is intentional—that Bezos wields his laugh like a weapon. "You can't misunderstand it," says Rick Dalzell, Amazon's former chief information officer. "It's disarming and punishing. He's punishing you."

Bezos read my press release silently for a minute or two and we discussed the ambitions of this book—to tell the Amazon story in depth for the first time, from its inception on Wall Street in the early 1990s up to the present day. Our conversation lasted an hour. We spoke about other seminal business books that might serve as models and about the biography *Steve Jobs* by Walter Isaacson, published soon after the Apple CEO's untimely death.

We also acknowledged the awkwardness inherent in writing and selling a book about Amazon at this particular moment in time. (All of the online and offline booksellers of *The Everything Store* undoubtedly have strong opinions about its subject matter. In fact, the French media giant Hachette Livre, which owns Little, Brown and Company, the house that is publishing the book, recently settled long-standing antitrust litigation with the U.S. Department of Justice and regulatory authorities in the European Union stemming from the corporation's dispute with Amazon over the pricing of electronic books. Like so many other companies in so many other retail and media industries, Hachette has had to view Amazon as both an empowering retail partner and a dangerous competitor. Of course, Bezos has a thought on this as well. "Amazon isn't happening to the book business," he likes to say to

authors and journalists. "The future is happening to the book business.")

I've spoken to Bezos probably a dozen times over the past decade, and our talks are always spirited, fun, and frequently interrupted by his machine-gun bursts of laughter. He is engaged and full of twitchy, passionate energy (if you catch him in the hallway, he will not hesitate to inform you that he never takes the office elevator, always the stairs). He devotes his full attention to the conversation, and, unlike many other CEOs, he never gives you the sense that he is hurried or distracted—but he is highly circumspect about deviating from well-established, very abstract talking points. Some of these maxims are so well worn that one might even call them Jeffisms. A few have stuck around for a decade or more.

"If you want to get to the truth about what makes us different, it's this," Bezos says, veering into a familiar Jeffism: "We are genuinely customer-centric, we are genuinely long-term oriented and we genuinely like to invent. Most companies are not those things. They are focused on the competitor, rather than the customer. They want to work on things that will pay dividends in two or three years, and if they don't work in two or three years they will move on to something else. And they prefer to be close-followers rather than inventors, because it's safer. So if you want to capture the truth about Amazon, that is why we are different. Very few companies have all of those three elements."

Toward the end of the hour we spent discussing this book, Bezos leaned forward on his elbows and asked, "How do you plan to handle the narrative fallacy?"

Ah yes, of course, the narrative fallacy. For a moment, I experienced the same sweaty surge of panic every Amazon

employee over the past two decades has felt when confronted with an unanticipated question from the hyperintelligent boss. The narrative fallacy, Bezos explained, was a term coined by Nassim Nicholas Taleb in his 2007 book *The Black Swan* to describe how humans are biologically inclined to turn complex realities into soothing but oversimplified stories. Taleb argued that the limitations of the human brain resulted in our species' tendency to squeeze unrelated facts and events into cause-and-effect equations and then convert them into easily understandable narratives. These stories, Taleb wrote, shield humanity from the true randomness of the world, the chaos of human experience, and, to some extent, the unnerving element of luck that plays into all successes and failures.

Bezos was suggesting that Amazon's rise might be that sort of impossibly complex story. There was no easy explanation for how certain products were invented, such as Amazon Web Services, its pioneering cloud business that so many other Internet companies now use to run their operations. "When a company comes up with an idea, it's a messy process. There's no aha moment," Bezos said. Reducing Amazon's history to a simple narrative, he worried, could give the *impression* of clarity rather than the real thing.

In Taleb's book—which, incidentally, all Amazon senior executives had to read—the author stated that the way to avoid the narrative fallacy was to favor experimentation and clinical knowledge over storytelling and memory. Perhaps a more practical solution, at least for the aspiring author, is to acknowledge its potential influence and then plunge ahead anyway.

And so I begin with a disclaimer. The idea for Amazon was conceived in 1994 on the fortieth floor of a midtown New York City skyscraper. Nearly twenty years later, the resulting company employed more than ninety thousand people and had become one

of the best-known corporations on the planet, frequently delighting its customers with its wide selection, low prices, and excellent customer service while also remaking industries and unnerving the stewards of some of the most storied brands in the world. This is one attempt at describing how it all happened. It is based on more than three hundred interviews with current and former Amazon executives and employees, including my conversations over the years with Bezos himself, who in the end was supportive of this project even though he judged that it was "too early" for a reflective look at Amazon. Nevertheless, he approved many interviews with his top executives, his family, and his friends, and for that I am grateful. I also drew from fifteen years of reporting on the company for *Newsweek*, the *New York Times*, and *Bloomberg Businessweek*.

The goal of this book is to tell the story behind one of the greatest entrepreneurial successes since Sam Walton flew his two-seat turboprop across the American South to scope out prospective Walmart store sites. It's the tale of how one gifted child grew into an extraordinarily driven and versatile CEO and how he, his family, and his colleagues bet heavily on a revolutionary network called the Internet, and on the grandiose vision of a single store that sells everything.

PART I

Faith

CHAPTER 1

The House of Quants

Before it was the self-proclaimed largest bookstore on Earth or the Web's dominant superstore, Amazon.com was an idea floating through the New York City offices of one of the most unusual firms on Wall Street: D. E. Shaw & Co.

A quantitative hedge fund, DESCO, as its employees affectionately called it, was started in 1988 by David E. Shaw, a former Columbia University computer science professor. Along with the founders of other groundbreaking quant houses of that era, like Renaissance Technologies and Tudor Investment Corporation, Shaw pioneered the use of computers and sophisticated mathematical formulas to exploit anomalous patterns in global financial markets. When the price of a stock in Europe was fractionally higher than the price of the same stock in the United States, for example, the computer jockeys turned Wall Street warriors at DESCO would write software to quickly execute trades and exploit the disparity.

The broader financial community knew very little about D. E. Shaw, and its polymath founder wanted to keep it that way. The firm preferred operating far below the radar, deploying private capital from wealthy investors such as billionaire financier Donald Sussman and the Tisch family, and keeping its proprietary trading algorithms out of competitors' hands. Shaw felt strongly that if

DESCO was going to be a firm that pioneered new approaches to investing, the only way to maintain its lead was to keep its insights secret and avoid teaching competitors how to think about these new computer-guided frontiers.

David Shaw came of age in the dawning era of powerful new supercomputers. He earned a PhD in computer science from Stanford in 1980 and then moved to New York to teach in Columbia's computer science department. Throughout the early eighties, high-tech companies tried to lure him to the private sector. Inventor Danny Hillis, founder of the supercomputer manufacturer Thinking Machines Corporation and later one of Jeff Bezos's closest friends, almost convinced Shaw to come work for him designing parallel computers. Shaw tentatively accepted the job and then changed his mind, telling Hillis he wanted to do something more lucrative and could always return to the supercomputer field after he got wealthy. Hillis argued that even if Shaw did get rich—which seemed unlikely—he'd never return to computer science. (Shaw did, after he became a billionaire and passed on the day-to-day management of D. E. Shaw to others.) "I was spectacularly wrong on both counts," Hillis says.

Morgan Stanley finally pried Shaw loose from academia in 1986, adding him to a famed group working on statistical arbitrage software for the new wave of automated trading. But Shaw had an urge to set off on his own. He left Morgan Stanley in 1988, and with a \$28 million seed investment from investor Donald Sussman, he set up shop over a Communist bookstore in Manhattan's West Village.

By design, D. E. Shaw would be a different kind of Wall Street firm. Shaw recruited not financiers but scientists and mathematicians—big brains with unusual backgrounds, lofty academic credentials, and more than a touch of social cluelessness.

Bob Gelfond, who joined DESCO after the firm moved to a loft on Park Avenue South, says that "David wanted to see the power of technology and computers applied to finance in a scientific way" and that he "looked up to Goldman Sachs and wanted to build an iconic Wall Street firm."

In these ways and many others, David Shaw brought an exacting sensibility to the management of his company. He regularly sent out missives instructing employees to spell the firm's name in a specific manner—with a space between the D. and the E. He also mandated that everyone use a canonical description of the company's mission: it was to "trade stocks, bonds, futures, options and various other financial instruments"—precisely in that order. Shaw's rigor extended to more substantive matters as well: any of his computer scientists could suggest trading ideas, but the notions had to pass demanding scientific scrutiny and statistical tests to prove they were valid.

In 1991, D. E. Shaw was growing rapidly, and the company moved to the top floors of a midtown Manhattan skyscraper a block from Times Square. The firm's striking but sparely decorated offices, designed by the architect Steven Holl, included a two-story lobby with luminescent colors that were projected into slots cut into the expansive white walls. That fall, Shaw hosted a thousand-dollar-a-ticket fund-raiser for presidential candidate Bill Clinton that was attended by the likes of Jacqueline Onassis, among others. Employees were asked to clear out of the office that evening before the event. Jeff Bezos, one of the youngest vice presidents at the firm, left to play volleyball with colleagues, but first he stopped and got his photo taken with the future president.

Bezos was twenty-nine at the time, five foot eight inches tall, already balding and with the pasty, rumpled appearance of a committed workaholic. He had spent seven years on Wall Street

and impressed seemingly everyone he encountered with his keen intellect and boundless determination. Upon graduating from Princeton in 1986, Bezos worked for a pair of Columbia professors at a company called Fitel that was developing a private transatlantic computer network for stock traders. Graciela Chichilnisky, one of the cofounders and Bezos's boss, remembers him as a capable and upbeat employee who worked tirelessly and at different times managed the firm's operations in London and Tokyo. "He was not concerned about what other people were thinking," Chichilnisky says. "When you gave him a good solid intellectual issue, he would just chew on it and get it done."

Bezos moved to the financial firm Bankers Trust in 1988, but by then, frustrated by what he viewed as institutional reluctance at companies to challenge the status quo, he was already looking for an opportunity to start his own business. Between 1989 and 1990 he spent several months working in his spare time on a startup with a young Merrill Lynch employee named Halsey Minor, who would later go on to start the online news network CNET. Their fledgling venture, aimed at sending a customized newsletter to people over their fax machines, collapsed when Merrill Lynch withdrew the promised funding. But Bezos nevertheless made an impression. Minor remembers that Bezos had closely studied several wealthy businessmen and that he particularly admired a man named Frank Meeks, a Virginia entrepreneur who had made a fortune owning Domino's Pizza franchises. Bezos also revered pioneering computer scientist Alan Kay and often quoted his observation that "point of view is worth 80 IQ points"—a reminder that looking at things in new ways can enhance one's understanding. "He went to school on everybody," Minor says. "I don't think there was anybody Jeff knew that he didn't walk away from with whatever lessons he could."

Bezos was ready to leave Wall Street altogether when a headhunter convinced him to meet executives at just one more financial firm, a company with an unusual pedigree. Bezos would later say he found a kind of workplace soul mate in David Shaw—"one of the few people I know who has a fully developed left brain and a fully developed right brain."

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At DESCO, Bezos displayed many of the idiosyncratic qualities his employees would later observe at Amazon. He was disciplined and precise, constantly recording ideas in a notebook he carried with him, as if they might float out of his mind if he didn't jot them down. He quickly abandoned old notions and embraced new ones when better options presented themselves. He already exhibited the same boyish excitement and conversation-stopping laugh that the world would later come to know.

Bezos thought analytically about everything, including social situations. Single at the time, he started taking ballroom-dance classes, calculating that it would increase his exposure to what he called n+ women. He later famously admitted to thinking about how to increase his "women flow," a Wall Street corollary to *deal flow*, the number of new opportunities a banker can access. Jeff Holden, who worked for Bezos first at D. E. Shaw & Co. and later at Amazon, says he was "the most introspective guy I ever met. He was very methodical about everything in his life."

D. E. Shaw had none of the gratuitous formalities of other Wall Street firms; in outward temperament, at least, it was closer to a Silicon Valley startup. Employees wore jeans or khakis, not suits and ties, and the hierarchy was flat (though key information about trading formulas was tightly held). Bezos seemed to love the idea of the nonstop workday; he kept a rolled-up sleeping bag in his office and some egg-crate foam on his windowsill in case he needed to bunk down for the night. Nicholas Lovejoy, a colleague

who would later join him at Amazon, believes the sleeping bag "was as much a prop as it was actually useful." When they did leave the office, Bezos and his DESCO colleagues often socialized together, playing backgammon or bridge until the early hours of the morning, usually for money.

As the company grew, David Shaw started to think about how to broaden its talent base. He looked beyond math and science geeks to what he called generalists, those who'd recently graduated at the tops of their classes and who showed significant aptitude in particular subjects. The firm also combed through the ranks of Fulbright scholars and dean's-list students at the best colleges and sent hundreds of unsolicited letters to them introducing the firm and proclaiming, "We approach our recruiting in unapologetically elitist fashion."

Respondents to the letters who seemed particularly extraordinary and who had high enough grade point averages and aptitude-test scores were flown to New York for a grueling day of interviews. Members of the firm delighted in asking these recruits random questions, such as "How many fax machines are in the United States?" The intent was to see how candidates tried to solve difficult problems. After the interviews, everyone who had participated in the hiring process gathered and expressed one of four opinions about each individual: strong no hire; inclined not to hire; inclined to hire; or strong hire. One holdout could sink an applicant.

Bezos would later take these exact processes, along with the seeds of other Shaw management techniques, to Seattle. Even today, Amazon employees use those categories to vote on prospective new hires.

DESCO's massive recruitment effort and interview processes were finely tuned to Bezos's mind-set; they even attracted one

person who joined Bezos as his life partner. MacKenzie Tuttle, who graduated from Princeton in 1992 with a degree in English and who studied with author Toni Morrison, joined the hedge fund as an administrative assistant and later went to work directly for Bezos. Lovejoy remembers Bezos hiring a limousine one night and taking several colleagues to a nightclub. "He was treating the whole group but he was clearly focused on MacKenzie," he says.

MacKenzie later said it was she who targeted Bezos, not the other way around. "My office was next door to his, and all day long I listened to that fabulous laugh," she told *Vogue* in 2012. "How could you not fall in love with that laugh?" She began her campaign to win him over by suggesting lunch. The couple got engaged three months after they started dating; they were married three months after that. Their wedding, held in 1993 at the Breakers, a resort in West Palm Beach, featured game time for adult guests and a late-night party at the hotel pool. Bob Gelfond and a computer programmer named Tom Karzes attended from D. E. Shaw.

Meanwhile, DESCO was growing rapidly and, in the process, becoming more difficult to manage. Several colleagues from that time recall that D. E. Shaw brought in a consultant who administered the Myers-Briggs personality test to all the members of the executive team. Not surprisingly, everyone tested as an introvert. The least introverted person on the team was Jeff Bezos. At D. E. Shaw in the early 1990s, he counted as the token extrovert.

Bezos was a natural leader at DESCO. By 1993, he was remotely running the firm's Chicago-based options trading group and then its high-profile entry into the third-market business, an alternative over-the-counter exchange that allowed retail investors to trade

equities without the usual commissions collected by the New York Stock Exchange. Brian Marsh, a programmer for the firm who would later work at Amazon, says that Bezos was "incredibly charismatic and persuasive about the third-market project. It was easy to see then he was a great leader." Bezos's division faced constant challenges, however. The dominant player in the space was one Bernard Madoff (the architect of a massive Ponzi scheme that would unravel in 2008). Madoff's own third-market division pioneered the business and preserved its market lead. Bezos and his team could see Madoff's offices in the Lipstick Building on the East Side through their windows high above the city.

While the rest of Wall Street saw D. E. Shaw as a highly secretive hedge fund, the firm viewed itself somewhat differently. In David Shaw's estimation, the company wasn't really a hedge fund but a versatile technology laboratory full of innovators and talented engineers who could apply computer science to a variety of different problems. Investing was only the first domain where it would apply its skills.

So in 1994, when the opportunity of the Internet began to reveal itself to the few people watching closely, Shaw felt that his company was uniquely positioned to exploit it. And the person he anointed to spearhead the effort was Jeff Bezos.

D. E. Shaw was ideally situated to take advantage of the Internet. Most Shaw employees had, instead of proprietary trading terminals, Sun workstations with Internet access, and they utilized early Internet tools like Gopher, Usenet, e-mail, and Mosaic, one of the first Web browsers. To write documents, they used an academic formatting tool called LaTeX, though Bezos refused to touch the program, claiming it was unnecessarily complicated. D. E. Shaw was also among the very first Wall Street firms to register its URL. Internet records show that Deshaw.com was claimed in

1992. Goldman Sachs took its domain in 1995, and Morgan Stanley a year after that.

Shaw, who used the Internet and its predecessor, ARPANET, during his years as a professor, was passionate about the commercial and social implications of a single global computer network. Bezos had first encountered the Internet in an astrophysics class at Princeton in 1985 but hadn't thought about its commercial potential until arriving at DESCO. Shaw and Bezos would meet for a few hours each week to brainstorm ideas for this coming technological wave, and then Bezos would take those ideas and investigate their feasibility. 6

In early 1994, several prescient business plans emerged from the discussions between Bezos and Shaw and others at D. E. Shaw. One was the concept of a free, advertising-supported e-mail service for consumers—the idea behind Gmail and Yahoo Mail. DESCO would develop that idea into a company called Juno, which went public in 1999 and soon after merged with NetZero, a rival.

Another idea was to create a new kind of financial service that allowed Internet users to trade stocks and bonds online. In 1995 Shaw turned that into a subsidiary called FarSight Financial Services, a precursor to companies like E-Trade. He later sold it to Merrill Lynch.

Shaw and Bezos discussed another idea as well. They called it "the everything store."

Several executives who worked at DESCO at that time say the idea of the everything store was simple: an Internet company that served as the intermediary between customers and manufacturers and sold nearly every type of product, all over the world. One important element in the early vision was that customers could

leave written evaluations of any product, a more egalitarian and credible version of the old Montgomery Ward catalog reviews of its own suppliers. Shaw himself confirmed the Internet-store concept when he told the *New York Times Magazine* in 1999, "The idea was always that someone would be allowed to make a profit as an intermediary. The key question is: Who will get to be that middleman?" ⁷

Intrigued by Shaw's conviction about the inevitable importance of the Internet, Bezos started researching its growth. A Texasbased author and publisher named John Quarterman had recently started the *Matrix News*, a monthly newsletter extolling the Internet and discussing its commercial possibilities. One set of numbers in particular in the February 1994 edition of the newsletter was startling. For the first time, Quarterman broke down the growth of the year-old World Wide Web and pointed out that its simple, friendly interface appealed to a far broader audience than other Internet technologies. In one chart, he showed that the number of bytes—a set of binary digits—transmitted over the Web had increased by a factor of 2,057 between January 1993 and January 1994. Another graphic showed the number of packets—a single unit of data—sent over the Web had jumped by 2,560 in the same span. §

Bezos interpolated from this that Web activity overall had gone up that year by a factor of roughly 2,300—a 230,000 percent increase. "Things just don't grow that fast," Bezos later said. "It's highly unusual, and that started me thinking, What kind of business plan might make sense in the context of that growth?" (Bezos also liked to say in speeches during Amazon's early years that it was the Web's "2,300 percent" annual growth rate that jolted him out of complacency. Which makes for an interesting historical footnote: Amazon began with a math error.)

Bezos concluded that a true everything store would be impractical—at least at the beginning. He made a list of twenty possible product categories, including computer software, office supplies, apparel, and music. The category that eventually jumped out at him as the best option was books. They were pure commodities; a copy of a book in one store was identical to the same book carried in another, so buyers always knew what they were getting. There were two primary distributors of books at that time, Ingram and Baker and Taylor, so a new retailer wouldn't have to approach each of the thousands of book publishers individually. And, most important, there were three million books in print worldwide, far more than a Barnes & Noble or a Borders superstore could ever stock.

If he couldn't build a true everything store right away, he could capture its essence—unlimited selection—in at least one important product category. "With that huge diversity of products you could build a store online that simply could not exist in any other way," Bezos said. "You could build a true superstore with exhaustive selection, and customers value selection." 10

In his offices on the fortieth floor of 120 West Forty-Fifth Street, Bezos could hardly contain his enthusiasm. With DESCO's recruiting chief, Charles Ardai, he investigated some of the earliest online bookstore websites, such as Book Stacks Unlimited, located in Cleveland, Ohio, and WordsWorth, in Cambridge, Massachusetts. Ardai still has the record from one purchase they made while testing these early sites. He bought a copy of *Isaac Asimov's Cyberdreams* from the website of the Future Fantasy bookstore in Palo Alto, California. The price was \$6.04. When the book appeared, two weeks later, Ardai ripped open the cardboard package and showed it to Bezos. It had become badly tattered in transit. No one had yet figured out how to do a good job selling

books over the Internet. As Bezos saw it, this was a huge, untapped opportunity.

Bezos knew it would never really be his company if he pursued the venture inside D. E. Shaw. Indeed, the firm initially owned all of Juno and FarSight, and Shaw acted as chairman of both. If Bezos wanted to be a true owner and entrepreneur, with significant equity in his creation and the potential to achieve the same kind of financial rewards that businessmen like pizza magnate Frank Meeks did, he had to leave his lucrative and comfortable home on Wall Street.

What happened next became one of the founding legends of the Internet. That spring, Bezos spoke to David Shaw and told him he planned to leave the company to create an online bookstore. Shaw suggested they take a walk. They wandered in Central Park for two hours, discussing the venture and the entrepreneurial drive. Shaw said he understood Bezos's impulse and sympathized with it—he had done the same thing when he'd left Morgan Stanley. He also noted that D. E. Shaw was growing quickly and that Bezos already had a great job. He told Bezos that the firm might end up competing with his new venture. The two agreed that Bezos would spend a few days thinking about it.

At the time Bezos was thinking about what to do next, he had recently finished the novel Remains of the Day, by Kazuo Ishiguro, about a butler who wistfully recalls his personal and professional choices during a career in service in wartime Great Britain. So looking back on life's important junctures was on Bezos's mind when he came up with what he calls "the regretminimization framework" to decide the next step to take at this juncture in his career.

"When you are in the thick of things, you can get confused by small stuff," Bezos said a few years later. "I knew when I was

eighty that I would never, for example, think about why I walked away from my 1994 Wall Street bonus right in the middle of the year at the worst possible time. That kind of thing just isn't something you worry about when you're eighty years old. At the same time, I knew that I might sincerely regret not having participated in this thing called the Internet that I thought was going to be a revolutionizing event. When I thought about it that way... it was incredibly easy to make the decision." 11

Bezos's parents, Mike and Jackie, were nearing the end of a three-year stay in Bogotá, Colombia, where Mike was working for Exxon as a petroleum engineer, when they got the phone call. "What do you mean, you are going to sell books over the Internet?" was their first reaction, according to Mike Bezos. They had used the early online service Prodigy to correspond with family members and to organize Jeff and MacKenzie's engagement party, so it wasn't naïveté about new technology that unnerved them. Rather, it was seeing their accomplished son leave a well-paying job on Wall Street to pursue an idea that sounded like utter madness. Jackie Bezos suggested to her son that he run his new company at night or on the weekends. "No, things are changing fast," Bezos told her. "I need to move quickly."

So Jeff Bezos started planning for his journey. He held a party at his Upper West Side apartment to watch the final episode of *Star Trek: The Next Generation*. Then he flew out to Santa Cruz, California, to meet two experienced programmers who had been introduced to him by Peter Laventhol, David Shaw's first employee. Over blueberry pancakes at the Old Sash Mill Café in Santa Cruz, Bezos managed to intrigue one of them, a startup veteran named Shel Kaphan. Bezos "was inflamed by a lot of the same excitement as I was about what was happening with the

Internet," Kaphan says. They looked at office space together in Santa Cruz, but Bezos later learned of a 1992 Supreme Court decision that upheld a previous ruling that merchants did not have to collect sales tax in states where they did not have physical operations. As a result, mail-order businesses typically avoided locating in populous states like California and New York, and so would Bezos.

Back in New York, Bezos informed his colleagues that he was leaving D. E. Shaw. Bezos and Jeff Holden, a recent graduate of the University of Illinois at Urbana-Champaign who had worked for Bezos as an engineer on the third-market project, went out one night for drinks. The two were close. Holden was from Rochester Hills, Michigan, and as a teenager, under the hacker nom de guerre the Nova, he had grown adept at cracking copyright protection on software. He was an avid Rollerblader and a fast talker; he spoke so rapidly that Bezos liked to joke that Holden "taught me to listen faster."

Now they were sitting across from each other at Virgil's, a barbecue place on Forty-Fourth Street. Bezos had tentatively decided to call his company Cadabra Inc. but was not committed to the name. Holden filled both sides of a piece of notebook paper with alternatives. The one Bezos liked best on the list was MakeItSo.com, after Captain Picard's frequent command in *Star Trek*.

Over beers, Holden told Bezos he wanted to come with him. But Bezos was worried; his contract with D. E. Shaw stipulated that if he left the firm, he couldn't recruit DESCO employees for at least two years. David Shaw was not someone he wanted to cross. "You're just out of school, you've got debt. And this is risky," Bezos said. "Stay here. Build up some net worth and I'll be in touch."

Later that month, Bezos and MacKenzie packed up the contents of their home and told the movers to just start driving their belongings across the country—they said they would call them on the road the next day with a specific destination. First they flew to Fort Worth, Texas, and borrowed a 1988 Chevy Blazer from Bezos's father. Then they drove northwest, Bezos sitting in the passenger seat, typing revenue projections into an Excel spreadsheet—numbers that would later prove to be radically inaccurate. They tried to check into a Motel 6 in Shamrock, Texas, but it was booked, so they settled for a road motel called the Rambler. 12 When MacKenzie saw the room, she declined to take off her shoes that night. A day later, they stopped at the Grand Canyon and watched the sunrise. He was thirty-one, she was twenty-four, and together they were writing an entrepreneurial origin story that would be imprinted on the collective imagination of millions of Internet users and hopeful startup founders.

More than a year passed before Jeff Holden heard from his friend again. Bezos had settled in Seattle, and he e-mailed Holden a link to a website. They were now calling it Amazon.com. The site was primitive, mostly text and somewhat unimpressive. Holden bought a few books through the site and offered some feedback. Then another year passed, and finally, a few months after Bezos's do-not-poach agreement with David Shaw expired, Holden's phone rang.

It was Bezos. "It's time," he said. "This is going to work."