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**HOW AMAZON
IS CHANGING OUR LIVES
AND WHAT THE WORLD'S
BEST COMPANIES
ARE LEARNING FROM IT**

bezonomics

BRIAN DUMAINE

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BRIAN DUMAINE

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For Caroline

Introduction

In the early days of Amazon, Jeff Bezos held biannual all-hands meetings for his employees at a small movie theater across the street from the company's old downtown Seattle headquarters. Since then Amazon has grown, and the all-hands meeting that Bezos called in the spring of 2017 was held at the city's KeyArena, a sports center on the site of the 1962 World's Fair, which holds 17,459 people. On that day, the place was packed. The last question Bezos took from the audience was: "What does Day 2 look like?" The question got a laugh from the crowd, because Amazonians are programmed to think in terms of Day 1 from the first minute they start working at the company. In Bezos's lexicon, Day 1 means that Amazon will always act as a start-up—every day has to be as intense and fevered as the first day of running a new business. Even the downtown Seattle high-rise where Bezos has his office is named Day 1.

Dressed in a white-collared shirt and gray jeans, Amazon's founder, letting out one of his explosive signature guffaws, said: "I know how to answer this. Day 2 is (and then he took a long pause) stasis." After another long pause, he continued: "Followed by irrelevance (pause), followed by excruciating, painful decline (pause), followed by death." Bezos smiled, and the crowd broke into laughter and applause as he walked off the stage. Their leader had articulated what these employees knew in their gut: that Amazon may be a gigantic tech company, but it's a very different kind of company, a place where intensity and drive are expected and where complacency is strictly taboo.

Despite his massive success so far, Bezos really does run his corporation, which was worth \$1 trillion as of 2018 (at the time more than any other company in the world), as if it were a small business whose very existence is

threatened daily. At another all-hands meeting in November of 2018, in response to an employee question about big companies like Sears going bankrupt, Bezos rattled the crowd by saying: “Amazon is not too big to fail. In fact, I predict one day Amazon will fail. Amazon will go bankrupt. If you look at large companies, their life spans tend to be thirty-plus years, not a hundred-plus years.” At the time he made that comment, Amazon was twenty-four years old.

Why would Bezos talk to his troops about the demise of Amazon? Perhaps he didn’t want to jinx all the good luck the company had experienced by sounding smug and invincible. Perhaps he worried that some huge competitor such as Walmart or Alibaba would figure out Amazon’s magic and take the company by surprise. There’s some truth in both of those things, but at heart Bezos fears most that Amazon will succumb to what is known as big-company disease, where employees focus on each other instead of on their customers, and where navigating a bureaucracy becomes more important than solving problems.

At his all-hands meetings, Bezos was making a heartfelt plea to his employees not to bask in Amazon’s success but to work even harder to invent new products and services that please customers, thereby delaying that day of reckoning for as long as possible. The best way to make customers happy, in Bezos’s playbook, is to make living their lives cheaper and easier. As Bezos put it: “It’s impossible to imagine a future ten years from now where a customer comes up and says, ‘Jeff, I love Amazon; I just wish the prices were a little higher.’ Or, ‘I love Amazon; I just wish you’d deliver a little slower.’ Impossible.”

This is textbook Bezos. He’s a hard-driving leader and unconventional thinker—imagine the CEO of GM or IBM talking about bankruptcy without panicking the troops or triggering a run on its stock. In many ways, Amazon is Amazon because Bezos built a culture in which everything is questioned, and nothing is taken for granted—not even the very existence of the company—and everyone must focus on the customer because all else flows from that. As Bezos put it in Brad Stone’s 2013 book, *The Everything Store*, which adeptly tells the origin story of the company: “If you want to get to the truth about what makes us different, it’s this: 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.”

All this might sound like trite management-speak, but Bezos is one in a billion—a leader who stands apart from other business titans because he figured out how to use his high IQ, combative style, and boundless energy to build a culture at Amazon that really does care about the customer. He chastises executives who worry more about the competition than the customer. When he sees an email from an unhappy customer, he forwards it to the appropriate executive with a simple “?” This sets off an alarm bell in the mind of the poor soul receiving the message, a Pavlovian response that makes that person drop everything and solve that problem for the customer—now. Of the scores of Amazon employees, both current and former, whom I interviewed for this book, all at some point mentioned the line “Everything starts with the customer,” as if their brains had been hardwired by one of the company's ace computer scientists.

Yet, as I dug deeper while researching this book, I became dissatisfied with the “Everything flows from the customer” mantra. Yes, it helped explain Amazon's success, but it was far from the whole story. I wanted to find the answer to the question: What does Amazon *really* want? After spending two years on research and interviewing more than a hundred sources, including many of the company's top executives, I came to this conclusion: Amazon wants to be the smartest company the world has ever seen.

A lot of businesses do smart things all the time, but Bezos has built a company that runs largely on big data and artificial intelligence. A lot of hype surrounds AI, but in essence, this entrepreneur has created one of the first and most sophisticated AI-driven business model in history, one that gets smarter and bigger on its own. Increasingly, the algorithms are running the company. The algorithms are *becoming* the company.

Bezos has designed Amazon to spin like a flywheel—a term Amazonians use religiously. Less a formula and more a high-tech perpetual-motion machine for

growth, the “flywheel” paradigm is deeply embedded in Amazon’s culture. Picture a three-ton stone wheel resting on a suspended axle. Getting it moving is tough. The trick is to apply enough energy day in and day out to get the flywheel spinning faster and faster until it keeps moving on its own. When Amazon offers perks to its Prime members, such as free one- or two-day shipping, free Amazon TV shows, or a discount at Whole Foods, it brings more customers to its site. More customers attract more third-party sellers to Amazon.com because they want to reach this large pool of potential customers. (Today, independent, third-party sellers account for more than half of all the products sold on Amazon. The company sells the rest directly to consumers.) Attracting more sellers increases Amazon’s revenues and creates more economies of scale that allow it to lower prices on its site and offer more benefits. That attracts more customers to Amazon.com, and that brings more sellers, and the flywheel keeps turning faster and faster and faster.

Other successful companies have built flywheels before. Jim Collins in his 2001 seminal book, *Good to Great: Why Some Companies Make the Leap . . . and Others Don't*, coined the term and cited examples such as Kroger and Nucor Steel, whose executives spent years patiently building successful businesses by driving their own versions of the flywheel. Nucor, as Collins points out, was facing bankruptcy in 1965 when CEO Ken Iverson discovered that the company was good at making cheap steel through a new technological process called mini-mills. Nucor started with one mill, which attracted more customers, which boosted revenues and allowed it to build another, more cost-effective mini-mill, which in turn attracted more customers, and so on. For two decades, Iverson and his team focused on pushing this mini-mill flywheel faster and faster, and by the mid-1980s Nucor had become the most profitable U.S. steel company. As of 2019, Nucor remained the largest American steel company.

But Amazon’s flywheel is very different. It has evolved into an even more formidable machine. What Bezos has done is taken the flywheel concept to a new level, a move that is revolutionizing the way we do business and one that has given the company an almost insurmountable competitive advantage over its rivals. He has created the next-generation corporation, the twenty-first-century model for how the world will do business. Bezos is now accelerating his flywheel

through the shrewd use of AI, machine learning, and big data. The company has gotten so good at applying computer technology that it has started to learn and get smarter on its own. No corporation has ever done this as successfully as Amazon. A lot of CEOs pay lip service to AI and hire a handful of data scientists in an effort to tack this technology onto their business model. At Amazon, technology is the key driver to everything it does. Consider that for the development and upgrading of its magic genie, Alexa, which runs on AI voice software, the company as of 2019 had deployed some ten thousand workers, the lion's share of which were data scientists, engineers, and programmers.

From day one, Amazon has been a technology company that just happens to sell books. Since those early days, Bezos has made big data and AI the heart of the company. The original Amazon website, which went live in July of 1995, promised the convenience of a million-book library in which you could search by “author, subject, title, keyword, and more.” If customers scrolled down to the bottom of that original site, they'd find the first example of Amazon's use of computer intelligence, a technology it would use to turn the retail industry upside down in the decades to come. That paragraph boasted of something called “Eyes, our tireless, automated search agent.” When a book by a favorite author was published or came out in paperback, Eyes would email readers to let them know.

Since then, Amazon has used its technological prowess to improve the way its site makes suggestions to its customers and to make sure it always has the right products in stock in the right warehouse for speedy delivery. It has collected massive amounts of data on its customers to build the algorithms that help provide them with the best service, low prices, and a mind-boggling selection of goods. More recently, its system has even reached the point where many of the retailing decisions that used to be made by executives are now being made by machines that get smarter and smarter each time they act. Every time these machines make a decision—ship ten thousand coolers to the Pasadena warehouse the week of the Rose Bowl or a thousand knit mittens to the Ann Arbor warehouse when winter is coming—it activates a subsequent check to see whether that decision turned out to be the correct move. The goal is to make

sure the company gets it right the next time. And the flywheel keeps turning faster and faster.

Bezos's relentless spinning flywheel has helped make Amazon the world's most formidable and feared company. The research firm CB Insights tracked the content of investor calls in 2018 and found that American executives brought up Amazon more often than they mentioned any other company, more than they mentioned President Trump—and almost as often as they talked about taxes.

And notwithstanding Bezos's warning his troops of a corporate apocalypse, this unconventional founder seems unstoppable. In early 2019, he was the richest man in the world with a net worth of \$160 billion, and he remained in that top spot even after giving his ex-wife, MacKenzie, a quarter of their jointly owned Amazon stock (worth at the time \$38 billion) in a divorce settlement. The company he founded controlled, as of 2019, nearly 40 percent of all online retailing in the U.S. and is one of the largest e-tailers in Europe. Amazon has expanded its Prime membership program to seventeen countries, and the number of people who have signed up for the service globally has hit more than 150 million. Bezos built Amazon Web Services (AWS) into the world's largest cloud computing company, and Prime Video into a streaming media giant nipping at the heels of Netflix, and he's the driving force behind the Echo, a smart speaker with Alexa inside that sold nearly 50 million units in its first few years of existence. Throughout the 2010s, this profitable company grew at an average rate of 25 percent a year—an astounding performance for such a large corporation (as of 2018, it had \$233 billion in annual revenues). Next, Bezos has set his sights on becoming a major player in brick-and-mortar retail, advertising, consumer finance, shipping, and health care—all driven by his AI flywheel.

I call this new corporate model Bezonomics. It's shattering the way we think about business, and its widespread adoption in the coming decades will have a profound impact on society. The business world is quickly dividing into those companies pursuing the status quo and those pursuing their own brand of Bezonomics by building up their AI technological skills so they, too, can have massive amounts of detailed knowledge about what their customers want and do. Established tech giants Alphabet, Alibaba, Apple, Facebook, JD.com, and Tencent fall into this camp. So do some traditional companies such as Goldman

Sachs. Harit Talwar, the head of Goldman's consumer bank division Marcus, talked about the Amazonization of banking at a 2019 conference: "Our purpose is to disrupt the distribution and consumption of financial services—pretty much what Amazon has done, and is doing, to retail." Of course, Amazon itself is already trying to disrupt the banking industry, too.

Echoing Talwar's refrain, Uber CEO Dara Khosrowshahi says that he wants his ride-sharing platform to be the Amazon of transportation—using big data to conquer all aspects of transportation, from food delivery to scooter-sharing services to pay systems. "Cars are to us what books were to Amazon. Just like Amazon was able to build this extraordinary infrastructure on the back of books and go into additional categories, you are going to see the same from Uber." As of late 2019, the company had a stock market value of \$52 billion, suggesting that Khosrowshahi's adoption of Bezonomics is working—so far.

Walmart, the largest company in the world by revenue, is working hard to join the club by investing heavily in AI and big data. It's trying to prove that an old-school retailer can transform itself into a twenty-first-century tech platform and it's spending billions as it girds for battle. Other businesses have responded to the Amazon threat by trying to protect their niche, offering their customers a highly curated experience and the kind of human touch that the Amazon machine can't match. Best Buy, Williams-Sonoma, British fashion e-tailer ASOS, Swiss luxury retailer Richemont—owner of Cartier—and Crate & Barrel, owned by the German e-commerce giant Otto, fall into this category. So do feisty small outfits such as Stitch Fix, Warby Parker, and Lulus. Those left untouched by Amazon are either lucky enough to be in sectors of the economy where this AI giant doesn't play—heavy industry, law, restaurants, and real estate—or are just dallying cluelessly until the Amazon steamroller crushes them.

The repercussions of Bezonomics on how we work and live are also profound. Amazon is a master of robotics, and although the company has created more than 650,000 jobs from its inception to 2019, it's about to unleash a wave of automation that—when copied by others—will roil our labor markets to the point where governments will need to take seriously the idea of a universal basic income. At the same time, as more companies pursue their own Bezonomics business model, life will become even more digitized, ushering in a

world where, instead of visiting malls or small neighborhood stores where we can interact with friends and neighbors, we'll sit in isolation in the glow of a screen and do our shopping with a click of the buy button.

During the writing of this book, many thoughtful friends and colleagues have asked me whether Amazon is good or bad. That's a fair question but a complex one, and in the case of most complicated things no simple answer exists. My hope is that readers of this book will grow to understand this complexity and recognize the ways Amazon both helps or harms business and society so that they'll be better equipped to survive in an age of Bezonomics and check the power of such big-tech platforms when warranted.

How one thinks about Amazon depends to a large degree on where one stands. For Amazon's Prime members around the globe, it's hard to argue that Amazon is evil. It offers a vast selection of goods—Amazon will not confirm how many, but one source puts it at nearly 600 million. It offers these goods at low prices and can deliver millions of them within two days or fewer for free. And it does this with very few mistakes and great customer service. For movie and music lovers, Amazon streams 2 million songs for free and has produced award-winning films such as *Manchester by the Sea* and popular TV series such as *Transparent* and *The Man in the High Castle*. In the U.S., Amazon consistently ranks as the most trusted and beloved brand. Globally, in a 2019 survey, it ranked first in brand reputation among the Fortune Global 500 corporations.

Amazon has been accused by politicians of crushing mom-and-pop businesses, and there's some truth to that. Small retailers who don't carry exclusive goods or provide outstanding service, low prices, or fast delivery have been crushed by Amazon and will continue to be. At the same time the company has been a spawning ground for start-ups. As of 2019, millions of independent businesses—1 million in the U.S. alone—from 130 countries sold 58 percent of all items on the company's Marketplace platform. Worldwide, Amazon says that the small businesses selling on its site have added, as of 2018, 1.6 million jobs. Amazon also helps small businesses in other ways. Its cloud computing service, AWS, has brought the power of big-corporate computer systems to

entrepreneurs at a reasonable price. Its Alexa AI voice software has created a huge opportunity for app developers and smart-appliance makers.

Yet all this comes at a cost. Amazon employs hundreds of thousands in their vast global warehouse network, and these jobs are hard, demeaning, and non-union. As bad as that situation is, those workers have to worry that they'll be replaced by robots who can do their tasks more quickly and cheaply. And that day is coming sooner than most think.

The company's culture is fast-paced, aggressive, and largely unforgiving for both white- and blue-collar workers alike. On the environmental front, the company's billions of deliveries and its energy-sucking server farms aren't helping the world's greenhouse gas emissions. Its dominance in online retailing has politicians calling for its breakup. On top of all that, in 2017 and 2018, the *Wall Street Journal* estimated that Amazon legally paid little or no U.S. federal income taxes—a fact that's hard to swallow given that the company posted \$10 billion in annual profits in 2018 alone. One of many reasons is that Amazon can deduct historical losses against today's profits, which helps keep the tax man at bay, much in the same way Donald Trump and his money-losing businesses have allowed him at times to pay little or no taxes.

These are certainly serious issues, but they're also ones that arise from the very nature of capitalism itself. As one of the largest and most successful of the new tech platforms, Amazon has come under intense scrutiny for some of its behavior, and in some cases it deserves blame. Its failure to address the concerns of community groups during its failed effort to place its second headquarters in New York City is a case in point. The amount of greenhouse gas emissions the e-tailer creates from shipping billions of packages and running its server farms doesn't help Mother Earth. But in the main, the solutions lie not in publicly attacking a single company but discerning the problems it and its ilk are creating (and will create) and then taking the appropriate steps to reform tax law, institute sensible carbon emission regulations, and enact government support and training for workers displaced by automation.

In the meantime, the best one can do is to take a close look at Amazon and learn how it's shaping the future. The point is that whether we like it or not, Bezonomics will keep engulfing a larger and larger share of the global economy.

My modest hope is that by reading about Amazon, those working to reform capitalism will better understand where business is headed in the twenty-first century, how Bezonomics has put us at a critical pivot point, and how it will roil society. For business leaders this book will explore in more depth how Bezos built his AI flywheel, why it works so well, and what one can do to compete against this behemoth. For the rest of us, I hope this journey through the world of Jeff Bezos will help us understand what's really happening to our life every time a smiling brown box arrives at our doorstep.

The first step is to grasp just how massive and powerful Amazon has become—and how it's more pervasive in our lives and intertwined in the global economy than most of us imagine.

CHAPTER 1

Bezonomics

As she wakes in the morning, Ella asks Alexa to brew her coffee, check the weather, and order groceries from Whole Foods to be delivered to her apartment that evening. Ella is twenty-six years old and has hardly known a world without Amazon. She bought all her college textbooks used from the website, then sold them back. Although she's had an Amazon Prime subscription since she was eighteen years old, she still feels an endorphin surge when she comes home to find a package on her doorstep sealed with Amazon-branded packing tape.

After breakfast, Ella takes the subway to her office. For her work, she searches for Bluetooth keyboards; no surprise, Amazon has the best selection. She clicks twice and knows they'll be at her desk the next or maybe even the same day if she really needs them fast. She backs up important company files on the cloud built by Amazon Web Services, researches small-business loans offered by Amazon Lending, then gathers her team to discuss her start-up's next major milestone: launching a new product on the Amazon site. That evening, on her way home, she stops at a cashier-less Amazon Go store to pick up a snack, and when she leaves, sensors and cameras automatically charge her Amazon account for what she carries out. She returns home, where she asks Alexa to read her a recipe for dinner. After eating, she relaxes by asking Alexa to play the Amazon Prime Video hit *The Marvelous Mrs. Maisel* on her TV, and then falls to sleep reading her Kindle.

Ella is a fictional character, but the world she lives in is very real. We all know that many others like her exist in the Amazon ecosystem—Amazon Prime members in America pay \$119 a year for the privilege of being fully enmeshed in it. Millions of Amazon's products can be shipped to them in seventeen countries

in two days or less for free. Not all Amazon shoppers, however, are Prime members. Around the globe, an estimated 200 million additional online shoppers have, whether they realize it or not, signed on for Bezos's operating system for life. And Bezos has only started to penetrate world markets. The company is extending its tentacles through Europe, India, Africa, South America, and Japan. Only in China, with its formidable homegrown digital giants Alibaba and Tencent, has Amazon been thwarted.

To the person on the street, Amazon is a business that delivers lots of stuff in little brown boxes. Walk down an avenue on any given afternoon in L.A., London, or Mumbai and you'll see Amazon's smile boxes piled up in lobbies or dropped at doorsteps. A former Amazon executive who served for a decade in high-profile positions at the company told me that what Amazon is really doing is creating a new operating system that will be broader and more pervasive than Apple's iOS or Google's Android. "Everything we did at Amazon," he said, "was about becoming a tightly woven part of the fabric of [people's] lives. We did that on Amazon.com and now here comes the Amazon Echo with Alexa, who tells us the weather, plays music for us, controls the lights and cooling in our houses and, yes, helps us buy things on Amazon.com. We're getting to the point where there is going to be a massive integration. Amazon is becoming an operating system for your life."

It's hard to fathom just how popular and addictive and all-encompassing Amazon has become. During the 2017 holiday season, three-quarters of Americans who shop online said they would make most of their purchases on Amazon. The next closest destination was Walmart.com, with 8 percent saying they'd do most of their shopping there. U.S. Post Office trucks in suburban areas made extra runs to deliver the stream of Amazon packages. In some areas, mailmen started their routes at 4:00 a.m. to keep up with the volume. On New York's Fire Island, the local ferry each morning was taking so long to unload Amazon deliveries that some ferry riders had to take an earlier boat to avoid missing their commuter train to New York City.

In an age where people are losing trust in our institutions, Amazon has earned deep respect. In 2018, the Baker Center at Georgetown University asked Americans which institutions they believed in the most. Democrats picked

Amazon above all others—quite surprising, given the mounting attacks from the Left targeting the company’s tough warehouse working conditions and its ability to squeeze large tax breaks from local governments and the fact that it paid little or no federal income tax in 2017 and 2018. The Republicans polled picked Amazon third after—no shocker—the military and the local police. Whether Democrat or Republican, those surveyed respected Amazon more than the FBI, universities, Congress, the press, the courts, and religion. That perhaps helps explain that while 51 percent of American households attend church, 52 percent have Amazon Prime memberships.

The reverence for Amazon runs particularly deep among the millennials and Gen Zers. The Max Borges Agency polled 1,108 people from the ages of eighteen to thirty-four who’d bought tech products on Amazon in the last year. An astounding 44 percent said they’d rather give up sex than quit Amazon for a year, and 77 percent would choose Amazon over alcohol for a year. This, however, might reveal as much about the lifestyles and sex drives of millennials and Gen Zers as about Amazon’s allure.

That kind of stellar reputation among consumers translates into dollar signs. A ranking of the world’s most valuable brands, released in mid-2019 by the data firm Kantar, a division of the advertising giant WPP, put Amazon for the first time at the top of the list. Its brand, Kantar estimates, is worth \$315 billion—up by an impressive \$108 billion from the previous year. Amazon beat out Apple and Google for the top spot. The company outpaced both Alibaba and Tencent by more than a two-to-one margin.

Amazon has become so addictive that it’s now taking a significant share of Americans’ income. The company siphons off 2.1 percent of all household spending—or some \$1,320 for a U.S. family that earns \$63,000 a year. The main reason consumers open their wallets for Amazon is that it saves shoppers the time, hassle, and expense of driving or taking public transport to a store to purchase mundane items such as diapers or batteries. A case in point: when Charlotte Mayerson, a retired book editor living on Manhattan’s Upper West Side, needed new batteries for her old landline phone, she hopped a bus to the nearest Best Buy for a replacement. The helpful clerk said: “Best Buy does not

carry that battery, but I'd be happy to help you out.” He walked to his computer screen and ordered the woman her replacement batteries—on Amazon.

Even some shoppers who despise Amazon can't live without it. Nona Willis Aronowitz, in an op-ed for the *New York Times*, said that on principle she hated Amazon because of the reports she'd read about the way it treated its warehouse workers. Yet, after her eighty-five-year-old father, who'd been a labor activist at one point in his career, had suffered a debilitating stroke, Aronowitz came to depend on Amazon for making sure her house-ridden dad had everything he needed—from physical therapy balls to cheap tubs of protein powder. Aronowitz saw using Amazon as a “deal with the devil,” yet wrote of her father: “He can't shop on his own, and his caretaker can't spend her life going to specialty pharmacies and medical supply stores. So Amazon Prime has been his lifeline.”

No one has any hard statistics on the topic, but there's plenty of anecdotal evidence that some shoppers develop a psychological addiction to Amazon. At one point, a forty-year-old man in Saco, Maine, had his account suspended for returning too many smartphones—Amazon's algorithms secretly decide who is worthy and who is not. The man spent months trying to get himself back in good standing. After much pleading to an Amazon customer service employee, his account was finally restored. As he told the *Wall Street Journal*: “It was dizzying and disorienting. You don't realize how intertwined a company is with your daily routine, until it's shut off.”

For some time now, scientists have known that using social media platforms such as Facebook, Twitter, and Instagram can be addictive. Every time someone's phone pings with a notification announcing the latest number of likes or an enthusiastic comment, the brain releases dopamine, a neurotransmitter that among other things can trigger a sense of pleasure. Users get used to these little highs and compulsively check the site to see if someone has commented on their latest post. Sean Parker, the founding president of Facebook who resigned from the social media company in 2005, once explained that to hook its users, the company exploited a “vulnerability in human psychology. Whenever someone likes or comments on a post or photograph, we . . . give you a little dopamine hit.”

Both adults and children are susceptible to Internet addiction although the phenomenon is particularly evident in children who become glued to their screens at a time when they should be developing social and reading skills. It has reached the point where some Silicon Valley titans won't let their kids use phones or at least strictly reduce their access to these devices. Chris Anderson, the former editor of *Wired* and now the chief executive of a robotics and drone company—hardly a Luddite—expounded upon children and screen use in a *New York Times* interview: “On the scale between candy and crack cocaine, it’s closer to crack cocaine. Technologists building these products and writers observing the tech revolution were naïve. We thought we could control it, and this is beyond our power to control. This is going straight to the pleasure centers of the developing brain.”

While social media sites such as Facebook, Instagram, and Twitter can cause social and psychological problems, Amazon is responsible for aggravating an equally serious phenomenon—shopping addiction. So powerful is its allure that some people get caught in a kind of compulsion feedback loop with dire financial consequences. The 1-Click buy button is the equivalent of getting a ping of affirmation on Facebook or Instagram. But instead of a “like” from a friend, a person with a single click knows they’ll get a reward—a package arriving at their home in a day or two with some item they desire—the equivalent of receiving holiday or birthday gifts throughout the year. So, they get a double hit of dopamine—one when they click and the other when the doorbell rings with a delivery.

Some have become financial victims of Amazon’s compulsion feedback loop. April Benson is a New York City psychologist who specializes in shopping addiction. In the course of her research she discovered some serious cases of addicted online shoppers, including a middle-aged woman named Constance from Long Island who recently filed for bankruptcy after accumulating \$150,000 in debt. As Constance told Benson: “I don’t know what it’s like to be a crack head, but shopping is my crack. . . . I work 7 days a week to support my habit. . . . Something’s got to give.”

Shopaholics are not new, but the Internet has made it easier to become one because of the convenience of shopping online. The Max Borges Agency poll of

millennial and Gen Z shoppers found that 47 percent have shopped online while using the bathroom, 57 percent while working, 23 percent while sitting in traffic, and 19 percent while drunk (although one might have thought that the number of besotted shoppers would be higher). One high school teacher in the Northeast said she'd occasionally sit in bed drunk, buy stuff on Amazon, and not remember the next morning what she ordered.

The addictive ease of shopping by the press of a button or with an Alexa voice command means that some shoppers might simply end up buying more junk than they need. The other day I found myself ordering on Amazon a stainless-steel coffee canister that had a carbon dioxide vent to keep the grounds fresh. Who even knew that CO₂ was a threat to coffee, and why did I care? I bought it anyway. The more we know we can buy, the more we buy. Online shopping is also a great way to procrastinate at work. Tired of designing that spreadsheet or writing that memo? Somehow your brain reminds you that you really do need a new pair of flip-flops for your upcoming weekend excursion to the beach, and off one's fingers go to Amazon.

One reason shoppers get hooked on Amazon is that they can find pretty much anything they want. In fact, as of 2018, Amazon and the millions of third-party retailers who sell on its site listed an estimated 600 million products worldwide. That's more than eight times the number of products offered by Walmart, the largest brick-and-mortar retailer in the world, which offers 120,000 items in its Super Stores and roughly 70 million online.

A deep dive into the Mariana Trench of Amazon's website dredges up some curiosities. Shoppers can buy a sixteen-color, motion-activated toilet bowl night-light (\$9.63); a men's black silicon wedding band (\$12.99 for a four pack), for the budget-minded and apparently pessimistic groom; Honest Amish Beard Balm Leave-in Conditioner (\$11.43); a live, sexed pair of Madagascar hissing cockroaches (*Gromphadorhina portentosa*) for \$13.50, but alas no longer available; and my favorite: a pillowcase imprinted with a photo of a bare-chested Nicolas Cage (\$5.89). The item earned 239 reviews and a four-star rating. As one happy reviewer named Kara said of her purchase: "I feel so protected knowing that Nicolas is in bed with me."