

# 1

## Prepare for the Unpreparable

*“Luck is merely an illusion, trusted by the ignorant and chased by the foolish.”*

—TIMOTHY ZAHN

*“I’m a great believer in luck, and I find the harder I work, the more I have of it.”*

—THOMAS JEFFERSON

The audience greeted the young entrepreneur with a hero’s welcome. He walked out onto the stage of the conference hall and looked out into the audience. The applause was deafening.

It was the fall of 2005, the last day of the Web 2.0 Summit in San Francisco. Sergey Brin, the 32-year-old cofounder of Google, was making a surprise on-stage appearance with John Battelle, the conference host.

Though it’s hard to believe now, in this era of a new wave of Internet success stories such as Facebook, Twitter, Zynga, and Pandora, back in 2005 most of the world still thought of the Internet as a

financial sinkhole whose moment had permanently passed after the technology stock bubble burst in 2000. The several hundred people at this conference, true believers in the business potential of the Web, knew otherwise. All the proof they needed was standing right there in front of them.

Brin, along with his cofounder Larry Page, had started, built, and taken public a company that had managed in just five years to become the greatest engine of wealth creation the world had ever seen. At a time when people were still scoffing at the idea of building a real business on the Internet, Brin and Page had not only done that, but had done it in a way that had made both of them, and several others, billionaires in the process.

The audience quickly fell silent as Brin sat down. What would he say? What secrets would he reveal? What would he explain to the audience that would help them emulate or understand his unbelievable achievement? Battelle's first question cut straight to the heart of the matter: "What," he asked Brin, "do you attribute Google's incredible success to?"

Brin responded confidently, as if this was just a run-of-the-mill engineering question. "The number one factor that contributed to our success was *luck*."

Silence from the audience. Was that really his answer? Could that possibly be true? He and Page had just blindly stumbled into their fortune? That didn't make any sense. Surely it must have been their superior intellect, their foresight, their dedication and perseverance that led to their success.

Realizing that his answer begged for an explanation, Brin continued: "We followed our hearts in terms of research areas, and eventually found we had something pretty useful, and wanted to make an impact with it."

This was a strange kind of luck. He wasn't talking about random interventions or being at the right place at the right time. No, he was talking about motivation, instinct, accidental discoveries, and passion. How was this luck?

If anybody in the audience was disappointed by that answer, they shouldn't have been. Brin was not just being humble. He was sharing a crucial insight: that for something to succeed with the kind of scale and speed that Google did, it requires more to happen than any one person, or even a team of people, can ever fully take responsibility for. This insight was central to how Google's founding team built the company.

By crediting his fortunes (and his fortune) to good luck, Brin wasn't abdicating responsibility for his success. He was acknowledging the creative tension between his personal goals and a world utterly out of his control. Miraculously, Google seemed to have turned this tension into an actual business practice. A practice that changed the world.

### Luck Is a Four-Letter Word

It's easy for us to dismiss "luck" as mere superstition.

When we hear the word, we're likely to picture a gambler on a winning streak, sitting on a stool at a Vegas blackjack table, taking another swig from a glass of whiskey. He has an impressive stack of chips on the table in front of him. At his elbows are the envious faces of his fellow players, and in front of him, the impassive face of a dealer preparing to deal the next hand.

Our gambler knows in his bones that he is on a lucky streak. His confidence has swelled, it seems as if nothing can stand in his way, and his next move is clear: he'll double down at his first opportunity.

We pity the poor gambler, for we know what he seems to have forgotten: that this is a carefully calibrated game designed to deliver just enough of this intoxicating feeling to keep him playing. And play on he does. By the time the dealer is finished with him, he'll give up not just his winnings, but dig himself a hole trying to recover his streak. The gambler will continue on, sure that his luck will return, and may end up pawning his wedding ring a few hours later once he hits his credit limit.

Looked at through this lens, there is no luck, only probability and human frailty. In fact, the reliability of the casino coming out on top is so complete that it stands as a counter-argument to the existence of luck



at all. Luck, like the cocktails that lubricate its appearance, is a cleverly crafted mirage, in the form of lotteries, slot machines, and reality TV shows, fodder for the desperate and undereducated.

Or we hurl the word “lucky” as a kind of insult at people we look down on. How many of us, upon seeing someone achieve notable success, haven’t said to the person next to us, “Well, *she* certainly got lucky.” The intimation is that when luck does strike, it is random, without rhyme or reason. What better way to imply that someone didn’t actually *deserve* their success?

But these views of luck detract from just how audacious the idea of luck really is. When we look at luck closely, it is a direct challenge to the logic of modern society. For hundreds of years we have built institutions based on reason and the inexorable advance of our machines. We’ve engineered career paths, industries, schools, markets, and political systems in ways that banish the role of chance brick by brick, rule by rule. The benefits of progress, we’ve been told, are available to everyone with machine-like regularity by dint of hard work and applied learning.

Our schools recoil at the suggestion that a student was a success, or that a professor gained tenure, because of luck. Executive boards would never admit that its officers held position by chance. Athletic teams and their fans rarely suggest that their winning records can be boiled down to happy accidents. Each of these, we’re told, is a formal system that produces results, based on individual hard work and well designed processes. Any suggestion otherwise would be heresy.

And yet . . .

### Stickier Than It Looks

There are many popular stories in which luck plays a central role, like the tale of Isaac Newton discovering gravity after being hit by an apple falling from a tree, or Ben Franklin encountering electricity while flying his kite. But most of these are dumbed down, just-so tales. The truth behind most creation myths is almost always more complicated—and more interesting. What follows is one of the most commonly cited examples of luck leading to massive business success: the story of the

invention of the Post-it note. And yet, even though many know the basic details of how Post-it notes were born, few draw the right conclusions from this luck-drenched story. For those of us looking to get as lucky with our next creation as 3M did, it's worth re-examining the story in full detail.

It was 1968, and a young chemist named Dr. Spence Silver had taken his first job at the Minnesota Mining & Manufacturing Company. He was working as part of a five-person research team trying to develop stronger adhesives for use in aircraft manufacturing.

“Adhesives are not to be confused with your everyday glue,” Dr. Silver says. To make glue, you just “boil animal bones down and make sure it's something that sticks when it dries.” Adhesives, by contrast, require real chemical engineering. They are delicate constructions built on complex molecules called polymers. By changing the structure of a polymer, chemists can affect an adhesive's qualities like stickiness, elasticity, and durability.

Working on his own one afternoon, Dr. Silver experimented with adding more chemical reactant to his polymer recipe than was considered safe. The results were astonishing: his mixture produced tiny bubbles that kept the adhesive from bonding firmly. This was not what he had expected.

Before long his experiments led to something very unusual but considered useless by most others. Rather than make a stronger adhesive, as was the goal, he had created one that had “high tack” but “low peel” adhesion, the latter being the measure of how easily it can be removed from items it is stuck to. Put simply, it was a magical adhesive that could be endlessly reused.

Silver was proud of his invention and began evangelizing its qualities. His colleagues didn't care. The adhesive was not relevant to the tasks they were working on. Eventually, Silver managed to convince the New Products lab manager, Dr. Geoff Nicholson, to make a prototype of a permanently sticky bulletin board that would allow papers to be attached and detached easily. But the product concept floundered. No one was interested.

Silver was frustrated. “I felt my adhesive was so obviously unique that I began to give seminars throughout the company in the hope I would spark an idea among its product developers,” he said.

Four long years later, an inventor named Art Fry from the Tape Division Lab attended one of the seminars Silver was still tirelessly delivering. Fry’s job was to propose new product ideas for the Tape Division and build them into businesses—for instance, tape for skis or for sticking books to shelves. But Fry didn’t have an immediate use for Silver’s unique adhesive, so he filed the information away in his brain.

Even more months passed. And then one day, while sitting in church choir practice, Fry became frustrated with his hymnal bookmark. It kept falling out, and he would lose his place. At that moment the memory of Silver’s novel adhesive flashed into his mind. The next morning he tracked down Silver to get a sample of the adhesive and used it to make a prototype of a sticky bookmark.

After several trials and errors, Fry successfully created a sticky bookmark that could be removed from a page without leaving adhesive behind. It was just what he needed to solve his choir practice problem, but the test users he gave them to just weren’t using them up very fast. It turned out people didn’t need that many bookmarks. As clever as his invention was, Fry needed people to use more of them on a regular basis to justify producing it commercially. The product didn’t appear viable after all.

Sometime later, while writing a report, Fry had a question he wanted to set aside for later investigation. Seeing one of his leftover sticky bookmarks on his desk, he cut off a piece, wrote his question on it, and attached it to the front of the report, which he then passed on to his supervisor.

“My supervisor wrote his answer on the same paper, re-stuck it to the front, and returned it to me,” Art explains. “It was a eureka, head-flapping moment—I can still feel the excitement. I had my product: a sticky note.”

He called in his boss, Nicholson, whose backing he would need to turn his idea into a product. The two immediately began to work

on a prototype together. They needed paper, and the lab next door happened to have yellow scrap paper. They used it to make their first sticky notepads.

Early test users were ecstatic. Executives would march through knee-deep snow in the dead of winter to get replacement notepads. The yellow color of the pads, in particular, was a hit. People assumed the color had been selected after much research and retrospectively attached significance to the choice. “The yellow was chosen to evoke a strong emotional response,” they would say, or “they’re designed to match yellow legal pads.”

“To me it was another one of those incredible accidents,” says Nicholson. “It was not thought out; nobody said they’d better be yellow rather than white because they would blend in—it was a pure accident.”

Accident after accident, through an accumulation of chance and circumstance spanning many people and multiple years, the Post-it Note was born. This \$100 million-a-year product line now includes pads in dozens of colors, sizes, and as of 2007, a super-sticky version for more demanding surfaces.

Yet there was nothing accidental about the way 3M, as the company is known today, created the conditions for the Post-it Notes—and over 55,000 other products across a range of categories—to emerge and make it to market successfully. Quite the contrary. Dozens of things had to go right inside the organization for the accidents to morph into creative inspiration and from there into business opportunities. 3M has found ways to harness chance occurrences over and over again. The company has, in a very real sense, discovered how to create its own luck.

## Good Luck Is Hard Work

Google and 3M are by no means the only companies that have figured out that luck is a crucial factor of their mojo, and that they can design their businesses to harness it. Your organization can plan to get lucky just as much as they have. What you’re holding is a manual to help you do just that, a manual for luck: what it is, how it works, and how to put it to work for you.



Let's be honest, though: for most of us harnessing luck sounds as bizarre as strategy planning with Tarot cards and palm reading. Yet what we've found is that the ability to harness unexpected discoveries is not just an actual practice; it is rather the *essential* practice for building a business in a time of accelerating, vertigo-inducing change. Making ventures work in a world as interconnected, complex, and unpredictable as ours requires engaging with the full scope of that complexity even though we can't see, model, or even imagine all that much of it. No matter how smart we are, or how big our idea, the world is always bigger. No matter how many of the possibilities we can see, there will always be factors outside our sight and beyond our control.

Many of us live with a daily background terror. We see industries failing, jobs disappearing, populations shifting, governments falling, currencies collapsing. This can't help but sow confusion and self-doubt, and the idea of putting our fate in the hands of chance may seem like the worst idea for calming jittery nerves and setting ourselves up for success.

The good news is that what worked for the characters we've met so far—that combination of hard work, personal vision, and unplanned good fortune—can work for you, too. Luck, it turns out, doesn't just happen by chance. Rather, the best kind of luck—that creative force known as *serendipity*—is the luck that we attract to ourselves. Because even if we can't predict it, we can court it and prepare for it, so that we know what to do with it when it shows up. And when it does, thanks to this book, you will know what to do.

OK, but wait a minute: who are we, exactly, and what do we know about luck in business?

For the past decade we have been in a remarkable position to witness the kinds of practices that power the most innovative companies in the world. We've worked with big companies as diverse as Google, Procter & Gamble, Zynga, Facebook, and Walmart, as well as countless startups and mom-and-pop operations. These companies couldn't be more different in terms of their purposes and their products, but over the years we began to see unmistakable patterns in the companies that



have successfully adapted to the breakneck pace of change our modern world demands.

Much of our insight came to us courtesy of the online service we founded with two other partners in 2007, Get Satisfaction, which has helped almost a hundred thousand organizations increase the role of happy accidents and unplanned information in their everyday operations. It's a community platform that lets companies of every size engage in open conversations with their customers—something like a Web forum, but one that plugs into all those life-or-death internal business processes that companies depend on.

From a simple idea—getting people inside and outside of an organization to talk to each other like human beings—we've seen all kinds of age-old assumptions get turned on their heads: customer service has become a new kind of marketing instead of just an after-the-sale cost center, organizations now materially benefit from responding and adapting to the needs of individual customers, and openness has become a virtue even in companies that previously thrived on secrecy.

Here are some of the amazing things we've seen through the eyes of Get Satisfaction customers:

- **Timbuk2**, a fashionable messenger bag company, discovered that its customers wanted a diaper bag, and that they could offer one simply by adding a set of accessories from other manufacturers.
- **Tide**, the detergent brand, found that the free samples they were giving out at events were often thrown away by people who didn't want to carry them around. A side-comment from a consumer was overheard by a product manager, giving rise to a redemption code innovation that both saved the company money and spared the landfill.
- **TechSmith**, a software maker, collected input about what customers wanted from a new version of their product. One suggestion about the user interface seemed straightforward until other customers responded, exposing surprising counterpoints that caused the company to rethink their entire approach to the product.



This new openness between companies and customers is a big change. Pundits are talking about how we're witnessing the rise of something new: the social business. Management consultants are getting paid truckloads of money to present graphs and buzzwords depicting "radical operational efficiencies," "friction-free communication," and "low-cost marketing" made possible by these new social tools. But what gets us excited isn't repackaging tired old business clichés in a fancy new wrapper. Instead, what's amazing is that truly social businesses are inviting the unexpected to intervene in their everyday functions. These businesses are letting go of much of the control they have traditionally hoarded in order to gain the huge benefits that can arise through chance interactions with their customers. Our goal in founding Get Satisfaction was precisely to help organizations make the transition into a new business environment filled with less certainty but more opportunity.

That same year we started Get Satisfaction, we also came across a blog post called "Luck and the Entrepreneur," by Netscape founder turned rock star venture capitalist Marc Andreessen, a Silicon Valley legend. His post described the work of American neurologist Dr. James H. Austin, who dissects the ins-and-outs of serendipity in his book, *Chase, Chance, and Creativity*. In the book, Austin recounts his early days as a medical resident accidentally stumbling into the clinical cases that would define his research, through the long and winding path of experimentation in the lab, to India where he forms some of his most important collaborations. Looking back on his career, Austin marvels at the consistent role chance has played throughout his career and proposes a formal model for understanding how luck works.

We were deeply impressed with the idea that luck is something that can be broken apart, studied, and perhaps even directed. Andreessen noticed this as well, and he ended his post with a bold statement that has rattled around in our heads ever since: "I think there is a roadmap to getting luck on our side."

This started us down our own path to understanding how these fortuitous accidents come about. What are people doing when they



make these discoveries that change their lives? Where does the surprise come from, and how does one recognize it when it arrives? Why are some environments more conducive to serendipitous discoveries? In other words, what makes some organizations luckier than others?

Our goal was to create a toolkit that would allow any organization to do what 3M or Google does so well—foster the conditions for serendipity to work its magic. We found that by breaking luck down into its component parts, by building on the research and insights of scientists as well as the behaviors of the smartest entrepreneurs we knew, we were able to demystify it. We surprised even ourselves when we uncovered a framework that makes sense of it all.

But hold on. Even in explaining our story we're making it sound like our path to writing this book was linear and intentional. This is the trap we humans often fall into—we all love a good story, after all, even when it isn't entirely true. (Just ask Ben Franklin.) The reality is that our path from Andreessen's post to observing the behaviors of so many companies to a coherent insight to an actual framework makes sense only in reverse. In fact, most of this happened as a subconscious background process while we started companies, raised families, and hosted cocktail parties. In retrospect—for instance, when we revisit presentations we made at conferences five years ago—we knew we were on the trail of a big idea, but at the time it looked like something else entirely. We could never have predicted all the unexpected encounters and surprising connections that finally brought us to this place where we now find ourselves sharing our ideas with you.

This book is itself, then, a product of serendipity.

## Science Gets Lucky

As it turns out, we're in excellent company. Luck isn't just for search engines and paper products—many if not most of the giant leaps forward in science are rooted in accident and only seem obvious after the fact.

You might think that science would be hostile to anything as seemingly impenetrable as luck. "It is never entirely in fashion to



mention luck in the same breath as science,” as Dr. Austin wrote in his book on the subject. If we can’t measure it or even agree on basic definitions, how can it possibly be science? It may be surprising, then, that luck, this most slippery of ideas, has been treated with great interest and even academic rigor, not just by Dr. Austin but by many of the world’s brightest scientific minds. A 1996 academic survey showed that almost 10 percent of the most cited scholarly articles include serendipity as a factor in discovery.

Turns out luck is more measurable and definable than it appears at first.

The scientific community’s interest in luck is by no means a new phenomenon. The mother of all “a-ha!” stories is the tale of Archimedes, the Greek physicist who lived three centuries before Christ. His story begins with King Hiero hiring a goldsmith to manufacture a gold crown. The King was pleased with the beautiful crown until his advisors suggested to him that the gold might be impure because it had been diluted with silver. Still, nobody was able to provide proof of the crime. Incensed, the King pleaded with his most trusted sage, Archimedes, to figure out a way to determine whether he had been swindled.

Archimedes was in a tough spot. He had to solve the problem definitively or he’d be shamed in the eyes of the court. He spent many hours in contemplation but was simply unable to come up with a workable solution. Eventually he decided to give up the chase for the evening and take a bath. He cleared his head and immersed himself in the tub. As he did so the water began spilling over the edge. This unrelated event spurred his mind to make the critical leap. He jumped out of the tub and began running through his home shouting the phrase that would be forever linked with serendipitous discovery, “Eureka! Eureka!”

Thanks to the overflowing tub, Archimedes’s mind was drawn to understand the relationship between relative displacement and specific gravity. He knew at that moment that by measuring the water displaced by equal weights of gold and silver he’d be able to prove whether or not the crown displaced too much water to be pure gold. He brought



his experiment to the court, where he demonstrated the crime to the approval of all—except, of course, the lying goldsmith.

Fast forward a few centuries and we find Joseph Priestley, the discoverer of oxygen, waxing eloquent on the theme: “More is owing to what we call chance . . . than to any proper design, or preconceived theory in this business.”

Priestley very well may have had in mind the accidental path that led him to soda water, which he invented in 1767. After moving to Leeds, England, to take a position with the clergy, he noticed the haze rising from the vats of beer at the brewery next to his temporary housing. This was a curious situation, so Priestley devised an experiment: he suspended bowls of water above the vats. When he tasted the water days later he found that it had a delightful effervescence. Indeed, the carbon dioxide released in the fermentation process had infused the water, a process we today call “carbonation” (though it took the business-minded J. J. Schweppe to turn Priestley’s Eureka moment into the business that continues to this day).

Chance has always played a significant role in science, but scholarly interest in it exploded in the last hundred years. Its star has risen in tandem with two of the biggest scientific ideas of the twentieth century: quantum physics and modern evolutionary theory.

In just the last hundred years we’ve seen the foundations of science upended: since the seventeenth century Newton’s “celestial clockwork” had dominated the imagination of investigators with the idea that they were studying a structured universe that was fundamentally deterministic. It was believed that the entire character of the world could be inferred from Natural Law; truths such as “an object in motion stays in motion” and “what goes up must come down” describe a machine-like universe, a well-oiled contraption of valves, levers, and ball bearings.

Quantum physics didn’t exactly contradict this idea, but it added a massive twist. Starting in the 1920s, physicists including Niels Bohr and Werner Heisenberg began to tell us that reality at the smallest level of matter—particles like atoms, electrons, gluons, and neutrinos—operates *very* differently indeed. They taught us that rather than thinking

of sub-atomic particles such as electrons as behaving like billiard balls moving from one position to another, we need to think of them as behaving “probabilistically.” An electron is only more or less likely to move from one position to another based on its position and velocity in space. It could, if the mood struck, jump suddenly to another part of the universe. Or it could spawn a doppelganger version of itself and exist in multiple places at once. Probabilities! Uncertainty! It turned out the physical world was not as consistent as we had once thought, and in fact our heretofore reliable Laws of Nature were actually built on a platform of chance.

But, in science as well as business, it’s not always easy to buy into the idea of such grand uncertainty as a key component of the way the world functions. Even Albert Einstein, who had contributed to the field of quantum physics, did not like its implications—that the world was not as deterministic as he personally believed it was. “I, at any rate, am convinced that He [God] does not throw dice,” he famously wrote in a letter to a colleague. But the math behind the science worked, and decade after decade the experimental results confirmed the new model, much to Einstein’s chagrin.

Meanwhile, a revolution of equal scale was occurring in biology as well. Charles Darwin had already transformed the field with the introduction of natural selection: the idea of “descent with modifications,” the straightforward concept that only those species that survive get the chance to pass down their traits to their offspring. Darwin, though, was haunted until the day he died by a question he could never answer: where did these “modifications” come from? Though evolution became widely accepted by the early twentieth century, biologists still squabbled over *how* evolution happens.

The answers came during the first half of the twentieth century, when Francis Crick and James D. Watson, building on a century’s worth of work regarding the nature of genetic inheritance, cracked the code that was the human genome. It was the discovery of DNA—the means of coding and replicating inherited traits—that brought the answer to light: random mutations in DNA and genetic recombination accounted

for all the necessary variation in the gene pool. The big surprise of what became known as the “neo-darwinian synthesis” was this: the only known source of biological innovation in life on our planet is chance. Combining the random input of genetic mutation with the sorting process enabled by natural selection creates evolution.

You could say, stretching the definition just a bit, that this is serendipity by another name. It appears as if luck is embedded deep, both within our genes and in the fabric of the universe.

### Spinning a Rattleback in Rotterdam

Until now we’ve used the words *luck* and *serendipity* almost interchangeably, but not just anything can be called serendipity. It’s this peculiar sub-species of luck that we’re really interested in.

Serendipity is a coined word, made up out of whole cloth in 1754 by the English wit Horace Walpole. The word has exploded in popularity only in the last fifty years or so, and still has no translation in many other languages. Its sudden ubiquity is stunning; there were a mere 135 mentions in print before 1958, but by 2000 the word had appeared in the titles of fifty-seven books, was the name of a 2001 major motion picture starring John Cusack, appeared in 13,000 news articles, and produced 23 million Google search results. Facebook’s CEO Mark Zuckerberg announced in 2011 that his social network was being designed to enable “real-time serendipity.”

Still, most people are confused about what the word actually *means*. It has been used to describe everything from “a witty writing style” to “destiny with a sense of humor,” and the word famously appeared, without explanation, on the cover of a women’s underwear catalog in 1992. In fact, the definition of “serendipity” has been consuming scholars ever since the word was invented. This presents a challenge for those of us looking to better plan our own serendipity, as it’s only with a sturdy and concise definition of this concept that we can hope to understand what makes it work. That’s where Pek van Andel comes in.

Van Andel is a medical researcher at the University of Groningen, two hours outside of Amsterdam, but the title he prefers these days is

“serendipitologist.” He’s also completely, *madly*, in love with the word serendipity. He’s become famous for his epic collection of thousands of examples of the phenomenon, and his personal history is a living example of the word.

In 1992 Van Andel and his colleague Jan Worst won a Dutch Innovation Prize for the invention of a low-cost artificial cornea, making eyesight a possibility for millions of low-income cornea-blind people throughout the world. A few years later he made headlines for his groundbreaking research on sexuality, having visualized human intercourse through live MRI scans. The idea for the project came about by chance after he stumbled upon MRI scans of a singing human larynx. Afterwards, the YouTube video of the not-safe-to-watch-at-work MRI scan was seen by over a million people, and received an international award (the Ig Nobel Prize) for “research that makes people laugh and then think.”

With a disarming smile, bushy mad scientist eyebrows, and lengthy hair suggesting an artist’s temperament, he is just what you would imagine a serendipitologist to look like, wry humor etched deeply into his face. Listening to Van Andel talk about his work suggests there may be another reason why scientists are so willing to embrace the role of chance. Science is a madcap endeavor, littered with wacky personalities whose obsessions and unconventional paths are the stuff of legend: Tycho Brahe’s gold prosthetic nose and pet moose, Gregor Mendel’s obsession with peas, Richard Feynman’s safe-cracking, Stephen Hawking’s scientific wagers. The best scientists treasure the unexpected because it’s a natural extension of their idiosyncrasies. Van Andel is no exception.

Thor got a chance to experience Van Andel’s passion for the subject of serendipity in person while visiting Rotterdam, The Netherlands, for a conference, where Van Andel shared with him the story of how Horace Walpole originally coined the term. Walpole based the word on a Persian fairy tale, *The Three Princes of Serendip*, referencing it in one of his eighteen hundred letters to his friend, the diplomat Horace Mann. Mann had given Walpole a portrait of a duchess, and Walpole

had stumbled upon her family's coat of arms in a book. In describing his delight at his finding, Walpole wrote:

*This discovery indeed is almost of that kind which I call serendipity, a very expressive word . . . I once read a silly fairy tale, called The Three Princes of Serendip: as their highness travelled, they were always making discoveries, by accidents & sagacity, of things which they were not in quest of [emphasis ours] . . . No discovery of a thing you are looking for comes under this description.*

Walpole's new word captured the spirit of the phenomenon brilliantly. Pek van Anandel suggests the succinct modern definition is "the art of making an unsought finding." Or as the old saw goes, "looking for a needle in a haystack and coming out with the farmer's daughter."

What becomes clear when you spend some time with Pek van Anandel is the depth of thinking on the phenomenon of serendipity that has occurred over the last hundred years—it's verging on a proper discipline. It's been exhaustively picked apart and analyzed by sociologists, mathematicians, inventors, creativity gurus, and everyone in between. Van Anandel believes fervently in the importance of understanding the role serendipity plays in the world, and when he travels across Europe to give master classes on the subject he often carries with him a suitcase full of books as physical proof of the righteousness of his cause.

During Thor's visit, Van Anandel opened his case up for Thor to see, pulling out book after book, each one a treatise on the role of accident in the creative process: French philosophers, German epistemologists, mathematicians and linguists, among others (a full list of his suitcase books is listed in the notes). Several times Van Anandel paused to crack one of these well-worn books and point out an underlined quote, usually in a language Thor couldn't read. He was like a wizard in a sacred order with his magical scrolls, the dog-eared secrets of serendipity ready at his fingertips.

With his prized books stacked in small towers scattered across the table, Van Anandel announced he would now share the physical



embodiment of serendipity: the ancient “Rattleback” Celtic Stone. “I can explain serendipity to a person without saying a single word by showing them this stone,” he said, removing a small wooden box from his bag. Nestled inside was a surfboard-shaped plastic form, flat on one side, curved on the other. With a mischievous grin he placed the Rattleback on the table, curved side down and flicked it into a spin with his index finger. Around and around it glided, eventually slowing towards a stop, when it suddenly reversed itself, accelerating its spin in the opposite direction!

“It’s much like a boomerang, you see. But it must have been discovered by accident. It *had* to—nobody would have spun the stone expecting this to occur. Someone thousands of years ago discovered what seemed like a magic stone, and then they turned it into this toy. We’re still playing with it thousands of years later. You can buy them on eBay.”

### Serendipity at Work

In all those books Van Andel carries with him, however, there are few that tackle the thorny subject of the role of serendipity in organizations. The scholarly literature on serendipity is overwhelmingly focused on the experience of the individual creative mind. While it’s true that businesses are made up of many different individual minds, anyone who has been employed in one can tell you the sum total of all those people working in concert is an entirely different beast—one that doesn’t often place much value on making room for chance.

It’s the rare organization that goes out of its way to open up space for serendipity, and yet, in business as in science, the big breakthroughs and mammoth successes always contain a significant element of luck. Consider our Post-it creation story. So many things had to go right for 3M to bring Post-it Notes to market, over the course of many, many years. How many companies would have tolerated that level of uncertainty for that long? Not only that, 3M had to create an environment that allowed researchers to follow their instincts, even when they led away from corporate expectations. It had to abide intellectual wild



goose chases, even when they seemed distracting or pointless. It had to encourage unplanned interactions between employees from different areas of the organization, often with varying goals and without knowing where, exactly, those encounters would lead. Management had to provide air cover when someone thought they'd discovered the "next big thing," so that their invention wouldn't get prematurely snuffed out before its value was fully understood, and the company needed a highly improvisational relationship with potential users in order to eventually discover the best possible use for the product.

One place in the business landscape we can look to in order to better understand how to embrace the kind of uncertainty that 3M embedded into its organization is the world of technology startups. At companies like our own Get Satisfaction and many other startups, the important leaps of discovery, though unplanned and surprising, are anything but random—they are the result of consistent focus, a sense of purpose, and just enough of the right kind of structure to fertilize the appearance of chance.

Founders of early stage startups tend to be naturals at many of these practices. It's the price of admission in an environment where, with a little luck, you might get the opportunity to invent an entirely new market. Speaking from our own experience, we know that startup founders begin with only an idea (or ten) and then use their raw instincts as a guide, relying on imagination and agility to tease a new business into its earliest shape. Startup founders don't know exactly how their product will work, or where (or even if) it will find a huge market. Their companies don't start out with formal sales and HR processes. Instead, they work tirelessly to attract initial customers and skilled employees by shamelessly networking and by talking the ears off anybody who will listen. They build business habits that not only accept the unknowns surrounding their business but learn to use them to their advantage. The uncertain environment becomes a spur to work harder and keep going.

But even with a startup, this often changes as the business grows up. Success means scale, and scale means adding layers of business processes that allow us to expand the number of employees and

customers. We strategize with twelve-month plans and start reading books about “managing innovation.” Hierarchy and process replace agility and intuition. All of these things are designed to help grow a sustainable business—and they may work. But they alienate us from the skills that got us into the game in the first place.

## Bringing Lucky Back

It’s a classic conundrum: the things that make us successful are the things that get stripped away once we’ve made it. It’s the rare company that manages to maintain these habits of luck as the organization scales. And yet as we’ve seen with 3M and Google (and will see many more times throughout this book), it’s exactly this embrace of chance, especially as a business grows, that creates the conditions for companies to maximize their opportunities for success.

This is where *Get Lucky* comes to the rescue. We’re bringing lucky back. Small company or large, it doesn’t matter: we will show you discrete skills you can develop to re-introduce serendipity into your work life.

We call our approach “planned serendipity.” It’s a set of concrete, attainable business skills that cultivate the conditions for chance encounters to generate new opportunities. Planned serendipity also provides you with the ability to recognize and put these opportunities to good use by showing you how to create and maintain the kinds of work environments, cultural attitudes, and business relationships that value and reward serendipitous occurrences.

To explain how planned serendipity works, we need to start with our own simple definition of serendipity, which we’ll use from this point forward: *serendipity is chance interacting with creativity.*

Here’s what it means: although we all recognize that chance is, by definition, inherently unpredictable, our actions—which embody our creativity, our ability to create something new and valuable that didn’t exist before—can have a massive impact on what’s possible. Spence Silver’s adhesive never would have become Post-it Notes had he not spent years scattering his discovery across the company. The actions

he took, and his willingness to explore creative possibilities and make connections beyond those that were obvious to everyone else around him, increased the likelihood that he would serendipitously stumble onto something that worked—and he did. Chance is highly sensitive to the actions we take.

Spence Silver was a natural practitioner of planned serendipity. So was Sergey Brin, the cofounder of Google. So was Archimedes. And so are many others about whom you've ever thought "Wow, that person sure is lucky." Each of these individuals practiced a specific set of skills that maximized the likelihood that good things would happen to them (and, by extension, to their businesses).

We have identified eight such skills, each of which represents a different facet of how luck works. Each skill will contribute to making your life luckier, and taken together they bring new meaning to the phrase "You lucky bastard." Every skill gets its own chapter in this book, but first let's take a brief tour of all of them.

### Skill 1: Motion

Motion is the most basic element of planned serendipity. To move is to shake things up, to break out of your routine, to find ways to consistently meet new people and run into new ideas. Motion does not discriminate based on experience, IQ, or educational background—it simply rewards energetic, spontaneous action. But it's not always so simple: we organize our lives and businesses to be orderly, measured, and respectful of others' spaces to a fault. We encourage immobility in our environments, making free movement far too rare.

### Skill 2: Preparation

Preparation is the ability to link together seemingly unconnected events, information, and people. Each of us is naturally capable of doing this to a greater or lesser degree, but the structures and roles we've grown up with—from the requirement to declare a major in college to the ubiquitous organizational chart that governs the daily interactions in most companies—have encouraged us to compartmentalize

everything. Understanding preparation can have a massive impact on how organizations model, hire, and develop roles, employees, and teams.

### Skill 3: Divergence

Divergence is the ability to recognize and explore alternative paths spurred by chance encounters, some of which may challenge our current thinking. It is the natural domain of scenario planners and futurists, and for people and organizations that have mastered divergence it is a means of sustained innovation. As a certain poet once pointed out, taking the road less traveled often makes all the difference.

### Skill 4: Commitment

Commitment is the ability to choose, from among the ever-widening set of options in front of us, the right ones to focus on. When we commit, we reveal ourselves publicly in the pursuit of our goals, and by exposing a strong point of view we transform the environment around us. We create awareness of our intentions in others, which often stirs up latent desires in them as well. By connecting our inner world to everything happening outside of it, we explode the likelihood of new and unexpected combinations of events and opportunities.

### Skill 5: Activation

To managers it seems obvious that high performance comes from keeping the team “on task,” and while this approach enforces focus, it also results in a loss of spontaneity. The way to balance these competing priorities is, somewhat paradoxically, to develop new constraints that release people from their rote behaviors. Activation is about designing experiences that foster serendipity—friendly impulses in our day-to-day lives and work situations. The best organizations are able to develop an institutional “muscle memory” that makes it more likely they’ll notice and act on the unexpected.

### Skill 6: Connection

The network age presents us with limitless opportunities to connect with the world at large in entirely unplanned, unexpected ways. The ability to optimize the number and quality of connections with others is one of the strongest factors in amplifying the opportunities for serendipity to happen early and often.

### Skill 7: Permeability

The best way to adapt to a world of accelerating change is to replace the rigid walls most organizations put up to keep themselves separate from the outside world with something more like a semi-permeable membrane. To do so, we need to develop techniques and tools that allow for the free exchange of information as well as the development of meaningful relationships between employees inside and customers and partners outside of the company. It's not just designated representatives who should be part of this exchange. For serendipity to happen frequently, everyone inside the organization should be part of this open, ongoing conversation.

### Skill 8: Attraction

Some people have the ability to attract serendipity to themselves. Unexpectedly, good things erupt around them at an uncommon rate. These are individuals who have mastered attraction, bringing to bear the full set of skills described above to project their purpose out into the world in a way guaranteed to draw the best and most valuable events, people, ideas, and opportunities towards them.

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Understanding these eight skills will help us to think differently about many assumptions we take for granted in business. There's often a giant gap between the free spirits that thrive in the absence of



structure and the planners who crave it. These eight skills offer a way to bridge this gap.

### Caught in a Double Bind

A word of caution before we dive in. If it's true that through the practice of planned serendipity we can directly increase the role of serendipity in our endeavors, then the opposite is equally true. We can develop attitudes and behaviors that smother it—and smother it we often do, with fervor.

As we've already begun to demonstrate, the normal function of most businesses is designed to squelch serendipity, not to encourage it. There's a simple reason: companies are structured to deliver predictability and reduce risk. It's an almost pathological compulsion of businesses to excise the role of chance from their routine operations, whether through quarterly revenue commitments, management by objectives, value chain engineering, or a thousand other things. We simply do not want to be surprised. It threatens our jobs and our market position, and what's worse, it upsets our comforting (and often delusional) sense of control.

When we add into this mix a mandate to foster serendipity, to be *creative* in ways that expose control as a myth, we find ourselves ensnared in a trap. It's called "the double bind" and it hovers over every one of these skills as you seek to develop them. It's a trap we saw unfold on a grand scale just a few years ago, on the occasion of the fortieth anniversary celebration of the Republic of Singapore.

Singapore is the tiny city-state that floats, like the dot on an exclamation point, off the southern tip of Malaysia. The ruling political party, the People's Action Party, had led its country to hyper-efficiency and growth, and had governed unchallenged since the country's founding in 1965. For its fortieth anniversary, the party now rallied its five million citizens with a wide-ranging new ad campaign to promote the country's achievements: "*The future is ours to make.*" There was a great deal to celebrate—in the previous four decades they had created one of the indisputable economic miracles of Southeast Asia, with the nation's gross domestic product (GDP) growing an average of over 7.5 percent



every year. The young city-state was admired around the world not just for its commercial gains, but for its low crime, clean streets, and high-tech infrastructure.

Singapore was equally well-known for its draconian rule, with strict speech policies on what its citizens could or could not do and say and severe punishment for disobedience. The author William Gibson once described the country as “Disneyland with the Death Penalty” in a 1993 article for *WIRED*. “You come to suspect that the reason you see so few actual police,” he wrote, “is that people here all have ‘the policeman inside.’ Conformity here is the prime directive, and the fuzzier brands of creativity are in extremely short supply.”

It was therefore widely noted when Singapore launched a campaign that included a message, which was, essentially, “*Be Spontaneous!*”

Indeed, by 2004 the government had recognized the limits that such strict social controls were placing on the nation’s potential and was making changes to encourage a cultural vibrancy to match its famed efficiency. The prime minister announced without irony, “If we are to encourage a derring-do society, we must allow some risk-taking and a little excitement,” adding, somewhat amusingly, “So changed is our mind-set that we will even allow reverse bungee jumping.” *The New York Times* duly noted that the country’s infamous ban on chewing gum would be “relaxed for people with medical prescriptions.”

However, forty years of authoritarian rule leaves a deep mark on a society. The embedded response of Singapore’s citizens was, as always, to obey. Except that in this case the imperative, to follow their impulses, ran directly against the grain of every other constraint imposed by their obsessively ordered culture. The two messages—be spontaneous, but make sure you don’t do anything unexpected or out of line—couldn’t be more contradictory.

This is a classic double bind.

The *double bind* is a term often used by psychologists and systems thinkers to describe this particular kind of crazy-making scenario. An authority makes two demands, one of which contradicts the other, on two different logical levels. Whichever instruction the victim follows, the other instruction becomes impossible. Making matters worse, the

victim is usually unable to communicate the dilemma. They often aren't aware that it exists at all, just that they are overtaken by a profound uneasiness. We see echoes of this dysfunction in many of the companies we've worked within. As employees we are expected to be candid but then are chastised for being impolitic. We're told to be authentic but are chided for being frivolous. We're encouraged to "think outside the box" but are held to aggressive schedules and narrow business requirements.

Singapore may yet escape its double bind. Six years after the "be spontaneous" campaign, a new Singapore—one with more personality, verve, and, yes, even a bit of spontaneity—is emerging. The prime minister's progressive policies have helped, but what is really making it a reality is a new generation that thinks differently about their choices and the range of what's available to them. No longer constrained by the need to conform completely, the younger generation of Singaporeans looks into the world and sees a broader set of opportunities than their parents' generation was able to imagine. A decade ago prospects were poor for an eclectic fashion designer in Singapore, but today that's changed. Jo Soh, 35, started a label called Hansel that has not only thrived but gone international. "When I'm 60 and look back on this time, I will see that I was part of a pioneering group that helped to change society," he says. Evidence of this cultural thaw is appearing all over the city.

Psychologists believe this is the way to untie a double bind: we have to change the basic rules under which we function and replace the logic that created the dilemma in the first place. First, by acknowledging it, putting names to the contradictory messages that form the straitjacket and creating conscious awareness of it, then by embracing a new way of thinking that resolves the conflict.

Planned serendipity serves just this purpose for us. Taken literally, it is a contradiction, of course. It is impossible to plan something that, by definition, is unplannable. Yet organizations are planning machines. The only way for them to embrace the unexpected is to find a space for it within these plans. In the chapters that follow we'll see how this seeming paradox opens up a middle path, so that we no longer have to choose between lame predictability and chaos. Planned serendipity

gives you and your business a way to actively, methodically engage the unknown.

Loving the unknown is the key, because if we want to succeed in today's frantically paced business environment, none of us has any choice but to face up to the uncertainties that lurk around every corner. And while we stand on the shoulders of giants in our endeavor to unlock the mechanics of chance—renowned businessmen, philosophers, scientists, inventors, and artists all make appearances on the pages of this book—it is more than anything a product of the hyper-accelerated Internet-era marketplace that surrounds us. In a world that changes as quickly as ours now does, where the pace of this change only seems to increase and where so much of what we need is as unpredictable as it is critical to our success, luck is the best ally we have.

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