
INTRODUCTION

THE SHAPE-SHIFTER

RANDY KOMISAR IS a bit of a legend in Silicon Valley. He started his career as a lawyer, then moved over to the business side of things, running LucasArts Entertainment and serving as CEO of Crystal Dynamics in the '90s. He was gearing up to become CEO of a bigger, perhaps public company. A fairly linear path lay before him, and he was executing on it masterfully. But Komisar began to notice something he didn't expect. He was becoming more and more successful on a path that was making him less and less happy.

So, in his words, he “jumped out of a perfectly fine airplane at Crystal Dynamics and just took off in midair.” He abandoned the safe path for a guy with his brains, abilities, and track record and decided to wing it, to create his career and his life from that moment forward by leaning into what made him come alive. There was no longer a blueprint for how he was going to spend the next ten or fifteen years of his life.

While others might have experienced that awareness as paralyzing, Komisar viewed it as immensely freeing. Energizing. It enabled him to think about his life and career from that moment forward very differently. The constraints of success no longer inhibited his ability to create what came next, so he started to reinvent himself. He began to see opportunities he never would have been open to before.

Komisar was looking for a way to interact with great entrepreneurs across a variety of ideas in a meaningful role. He didn't know what that was. He didn't know how to get paid. He didn't know if it would be the same role in every company. He didn't know what he'd do or not do. All he knew was he was going to put one foot down in front of the other in that direction. There was no map. No proof of concept. No promises of success.

Randy Komisar literally created a new job category, the Virtual CEO, around what he saw as a peculiar set of qualities and experiences he had and the specific needs of Silicon Valley during the start-up boom of the late '90s. At that time, there were insufficient resources to lead organizations, and the entrepreneurs coming up were not experienced entrepreneurs. They needed what Komisar had to offer.

In the role of Virtual CEO for legendary tech companies like WebTV and TiVo, Komisar partnered with entrepreneurs to help them grow themselves and their ideas into great businesses. As he put it, "I served as consigliere without displacing them, rolling up my sleeves to work through all the bits of building their businesses—strategy, recruiting, partnering, financing, leadership—the whole gamut. Their individual development was as important to me as the development of the business." Some things didn't work, some things did work, and the idea got a lot of attention and ultimately served as a model for people who would eventually follow in his footsteps.

Komisar's exposure as a Virtual CEO then opened up another entirely unforeseen opportunity. Harvard Business School Press was

looking to publish some interesting new books during the boom. The editor at the time, Hollis Heimbouch, flew out to the Valley and invited Komisar for coffee at the Konditorei, the coffee shop that served as his unofficial office. She said, “Let’s begin just writing a book.” Komisar’s first answer was no, because he felt he had nothing to say.

By the next morning, he had changed his tune. He said, “If you’re willing to give me a shot to do something completely different, I’m going to write a book that’s a business book but not a business book. It’s not going to be your typical Harvard business book. It’s not going to have thirteen chapters to tell you how to do something. It’s going to be full of ambiguity, uncertainty. It’s going to lay out the bread crumbs, but it’s not going to lay out the path.”

Heimbouch said yes. With that, the fable-driven classic and national bestseller *The Monk and the Riddle* (2000) was born. Out of the book came a teaching position at Stanford University that eventually led to Komisar’s current incarnation as a partner in the legendary Sand Hill Road venture capital firm Kleiner Perkins Caufield & Byers.

THE CHANGE MAKER

Marie Forleo is a force of nature. A former fitness and dance instructor who traveled and presented around the world as part of the Nike team, she knows how to command a stage. Forleo doesn’t know the meaning of the word “no.” She self-published her first book, selling 8,000 copies on her own before it was picked up by a publisher (it’s now available in nine languages). A few years back, Forleo began to realize she’d built not only a strong personal brand but a real business. And she’d become fascinated by the idea of creating a completely location-independent company. She began to devour information on entrepreneurship and marketing, learning from some of the world’s

top marketers and entrepreneurs, then turning around and sharing what she was learning with a market she deeply connected with—women entrepreneurs.

She started with lower-priced trainings, coaching, and information products and was growing a nice business, consistently pushing her comfort zone as she grew. But it was her decision to make a huge leap in her brand in 2009 that left her shaking with anxiety. She'd discovered the concept of mastermind groups. These were generally groups of like-minded entrepreneurs or professionals who would pay to gather in the presence of a group organizer, usually a high-profile achiever in the field, and discuss business. Lower-priced mastermind groups would get together by phone, but the higher-priced ones would convene in person at a hotel or some other location.

Forleo was fascinated by this model in part because of how much potential it had to have a direct, ongoing impact on careers, aspirations, and lives, but also because of how much higher the price point was than the services she'd been offering. Moving her business to the level of offering mastermind groups and charging fifteen times the price of her existing highest-ticket service would mean a giant leap in income, reach, and fun.

The problem was that she had issues with the way mastermind groups were traditionally run. They were formulaic, stodgy, held in conference rooms, and often focused entirely on business, without reference to how the participants' lives interacted with their companies. Forleo wanted to create an experience that was radically different on every level. Something that would redefine masterminding. Something that had never been done before. That elated her . . . and terrified her. But more inspired than paralyzed, she set to work.

Forleo's experience would be built around exotic locations and adventures that wouldn't be revealed until the last minute. While they wouldn't exclude men, they'd largely be tailored toward the lives and fantasies of women entrepreneurs. They would incorporate not

only extensive business and marketing training, but a wide range of lifestyle-driven conversations and activities that ranged from making a music video to pole dancing to using business to drive social change. They would be about enduring relationships and spiritual transformation. And they would cost serious money—\$15,000 (which at last glance had bumped up to \$20,000) a year—with only as-needed access to her between quarterly excursions.

Pulling off this idea would mean a massive leap forward for her business and her reputation as an entrepreneur, thought leader, and marketer. If she crashed and burned, especially in what would be a public way, it could be devastating. It's hard to sell mastery of entrepreneurship, marketing, and lifestyle without being able to succeed at those very things in your own business and life. This was Forleo's moment to face the unknown, to lean into uncertainty, risk her reputation, and expose herself to judgment—all in the name of creating, building, and serving on a new level. Anxious, shaking, concerned but hopeful, she went public with her vision with a video made on her Flip camera.

The response was instant. People said yes. They'd never seen or heard of anything like what Forleo was planning to deliver. They wanted in. With that, the Rich, Happy & Hot Adventure Mastermind was born. Forleo's continued willingness to embrace uncertainty and fear, rather than run from them, has allowed her to now expand the brand to include an annual conference in New York, offshoot online programs, and tremendous business growth. Because it's close to her heart, it's given her the ability to give a lot more back.

In 2010, only a year after “the big leap,” Forleo had grown her business to the point where she was able to launch an initiative called Change Your Life, Change the World, through which she gave 5% of the net profits of her online coaching program to women-focused philanthropy. This led to a partnership with Richard Branson's Virgin Unite Foundation. In early 2011, Forleo accompanied Branson and a

small group of entrepreneurs interested in using business for social change on a “connection trip” to Africa, where they visited selected Virgin Unite–funded initiatives, including various clinics, the Branson Centre of Entrepreneurship, orphanages, and schools. It was one of the most extraordinary experiences of her life and, for her, a signpost of much bigger work to come.

THE FILMMAKER

For fifteen years leading up to October 15, 2008, Erik Proulx was a copywriter at a number of large advertising agencies. A week earlier, he’d been told a promotion to Associate Creative Director was on its way, along with a nice raise. That was great news. Proulx enjoyed what he did; he was a married father of two with a house in a suburb of Boston, so the extra money would come in handy. Maybe even, for the first time, he’d be able to start putting some money away for the future.

When he got the call on the 15th, though, he wasn’t sure what to expect. Since he’d been told he was about to be promoted, people all around him were being laid off. Sure enough, instead of getting a promotion, he was asked to leave. To this day, he remembers the only two words his career-executioner said: “Sorry, dude.”

Proulx was angry, sad, frustrated, and concerned about the future of his family. His modest savings wouldn’t cover them for long. And while he was thankful when new offers came in for copywriting jobs that were pretty similar to the position he’d just lost, for some reason, as each offer arrived, he kept saying no. Something in him had changed. A fire had been lit, but he wasn’t quite sure what was burning—or where it would lead him. While he loved the creative part of advertising, especially the storytelling aspect, he didn’t enjoy

working on campaigns for clients and products he could care less about. He didn't like the lack of security of being only as good as your last campaign. And he didn't want to go back.

So with a family to support, a house, a mortgage, and no income, he did the only logical thing: He became a documentary filmmaker.

Proulx had become possessed by the desire to tell the stories of the thousands who were being fired in his industry (remember, this was October 2008, the beginning of mass economic destruction) but had somehow reframed their demise as permission to finally do what they were here on Earth to do. He'd never made a film before. He had no money to do it, let alone pay his monthly living expenses. But there was no question about this movie's being made. This was his moment, and the movie *Lemonade* (2009) was the thing Proulx couldn't not do.

Was he afraid? Absolutely. Terrified? Maybe. Uncertain of nearly everything beyond the fact that this was what he wanted to do? Yes. Still, Proulx posted his intention on his blog. He tweeted it out and posted it on Facebook. Hours later, the advertising industry news mammoth *Ad Age* picked up the story. *Holy crap*, Proulx thought. There would be no turning back now—he had gone public. Whether he succeeded or failed, *Lemonade* was his to own.

From this public commitment, it seems, as W. H. Murray recounted in *The Scottish Himalayan Expedition* (1951), “all manner of unforeseen incidents, meetings and material assistance, which no man could have dreamt” came his way. His passion, his energy, his willingness to do whatever it took to tell a story that so many wanted to hear, at a time of great despair, propelled the quest. He needed cameras to film, but had no money. Sony made them appear. He needed to get to Los Angeles to interview four people but couldn't afford the airfare. He tweeted and posted his dilemma online. Two hours later VirginAmerica stepped up to cover his travel. Film and sound peo-

ple and color correctors rallied to the cause. Top movie editors and production houses donated time to help turn hours and hours of footage into thirty-six minutes of genius.

I remember sitting on a large slab of granite with Proulx on the southern edge of Manhattan's Central Park shortly after the movie came out. He was scrambling to piece together contract work while traveling around, showing the movie in small venues, and hustling to get distribution deals. It was a time filled with triumph but also with a new wave of self-doubt. The movie was done. It had been very well received but had been rejected by the major festivals that would have opened the way to major distribution money. The quest had crested.

Proulx wanted to keep telling stories that meant something. But he'd already put his family through so much. They were leveraged to the hilt, and though his wife was still his greatest champion, he was fairly certain they'd have to give up the house in which he wanted desperately to be able to live out his days. Scale down and move to another state where they knew nobody but could live more affordably.

I asked Proulx why he thought he had to make a choice between a job and being a filmmaker who tells stories that touched people. Why couldn't he do both? The world had rallied to support him once. There was no reason he couldn't keep making movies, using the same hustle that made the first movie happen to now line up enough advertising gigs to support his family and keep paying his mortgage. It might take a little longer to make a film. But so what?

And that's exactly what he did. A new quest was born. Four days before turning in this manuscript, I spent an hour catching up with Proulx. The night before, he'd paid off a \$16,000 credit card bill. He was still in debt, but an albatross had been lifted: he was making good money with his unconventional blended career. And he was well into his next film, *Lemonade: Detroit* (2011).

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In rock climbing, each route from the ground to the peak is rated with a number. A climb rated 4.0 or lower is considered nontechnical. You need strength and agility, but not equipment. A climb rated 5.0 and higher requires ropes, harnesses, other protective gear, and a bit more experience. Climbing at a godlike 5.14 level requires years of training, practice, less than 5% body fat, and a will of steel.

The interesting thing about these ratings is that they aren't based so much on the difficulty of the entire climb as on a set of moves known as the crux. Crux moves are the most challenging moments of the entire route; they often require you to push physically, emotionally, and intellectually, to take big and often blind risks in a way no other part of the climb does. There may be multiple crux moves along a single route. The manner in which you handle the thousands of smaller moments of uncertainty and challenge along the way determines whether you get to the crux moves. But the way you handle the crux moves themselves so strongly determines whether you'll actually reach the peak that the difficulty of the most challenging crux sequence is often used to rate the entire climb.

Any worthwhile creative endeavor has its own crux moves. Your project may be defined in part by your day-to-day decisions and actions, but what really determines whether you succeed or fail—whether you're starting a business, developing a new product, making a film, or writing a book—is how you respond during a series of pivotal moments—the creation crux moves.

These are the moments the creators on the previous pages faced and will continue to face as their journeys evolve. Marie Forleo met hers when she decided to stake her business and career on a big risk and bring her secret vision to a completely untested public. Randy Komisar's unfolded the moment he chose to, in his words, "jump out of a perfectly fine airplane," and when each subsequent leap into something new introduced more challenge. Erik Proulx's first big one

was the decision to reject a return to the career that was paying his bills but emptying his soul and instead to live and die in a very public way by doing what nobody else would dare to do.

These creation crux moves are the moments when the legends and stories of every great artist, entrepreneur, corporate innovator, and quest-driven visionary are born. They are punctuated by the opportunity to rise above what Theodore Roosevelt called the “gray twilight that knows neither victory nor defeat” and lay claim to genius.

This is where the magic happens . . . if it doesn’t kill you along the way.

THE THREE PSYCHIC HORSEMEN OF CREATION

One of the single greatest determinants of high-level success as an innovator or creator in any realm is the ability to manage and at times even seek out sustained high levels of uncertainty, bundled lovingly with risk of loss and exposure to criticism.

These three psychic horsemen of creation must often not only be sought, but embraced repeatedly and with increasing levels of intensity over extended periods of time. In fact, they are often signposts that you’ve entered your next big creation crux move. In the context of a single endeavor, you may need to live in this place for hours, days, months, or years until the project takes on enough form to prove the validity of the vision. In the context of the desire to build an extraordinary career, legacy, business, or body of work, we’re talking a lifetime of returning to that place again and again. For those driven to create something extraordinary from nothing, there is no end. There are only ebbs and flows.

The problem is, the vast majority of creators across all fields, from painters to entrepreneurs and writers to CEOs, are horribly equipped to handle the fear, angst, and anxiety that ride along with these crit-

ical moments. And it's this very failure, much more so than a lack of creativity or vision, that destroys so many endeavors and careers—and at times even the creators themselves.

Oddly, nobody talks about this. Most people just assume you either have the magical ability to lean into uncertainty, risk, and exposure or you don't. In a recent keynote address before 500 of the world's top creatives at the 99% Conference in New York City in 2010, Rhode Island School of Design president John Maeda spoke about the critical importance of being able to endure tremendous levels of creative ambiguity. He argued that one of the things that makes creative people different is that they “love mistakes” and are “completely okay with ambiguity.”

“It's quite natural,” he said.

But is it really? Is your ability to handle the uncertainty, risk, and exposure that are integral to the quest, especially at the critical moments, simply a matter of whether or not you landed in the right gene pool? Are all high-level creators simply natural-born fear alchemists, able to magically transform their fear into a positive force? And if you've been blessed with the compulsion to create, but not the seeming organic ability to live in the question without pain, does that mean your only resort is suffering or self-medication?

Or are there things you and the organizations you work within can do that will allow you not only to endure but embrace the purported dark side as fuel for creation? To invite uncertainty, take risks, and expose yourself to criticism in the quest for brilliant outcomes? Most important, can those things be taught?

DECODING THE CREATION MIND-SET

Uncertainty is about what goes on in your head, your heart, and your gut as you strive to create anything truly extraordinary. It's about the

nutty things we do, the gremlins we battle, the decisions we make and actions we take in the pursuit of long-term, large-scale creative, artistic, entrepreneurial, and organizational greatness.

The book begins with an in-depth exploration of the three psychic horsemen of creation: uncertainty, risk, and exposure to criticism. We'll uncover why they lead to so much suffering and why, in spite of the havoc they so often wreak, they must remain present. We'll also look at what happens when you try to snuff them out instead of embracing and even amplifying them.

We will explore the myth of the natural fear alchemist and discover how most of these “freaks of nature” are actually just as terrified as you but have adopted a set of personal practices, workflow adaptations, and have created or found themselves in environments that are built to support innovation and creation and that allow them to lean into the fear and anxiety.

Then we'll dive into those transformational personal practices, workflow and situational changes—the ones that let you feel the uncertainty, risk, and exposure necessary to high-level creation, but experience them more as opportunity rather than deep suffering, anxiety, and paralysis.

The book then will take a bold leap into the world of Creation 2.0, exploring what happens when you turn loose next-generation “social” creative and business processes—like lean methodology, rapid iteration, and community co-creation—on the worlds of entrepreneurship and traditional art. You'll discover how to adapt these approaches to radically enhance the creative output and speed of the process without bastardizing your ethos or diluting your output. You will learn how these approaches, artfully leveraged, can profoundly change the deeper psychology of creation and inject a serious shot of humanity into the journey. You will also learn to build these tools and strategies into the fabric and culture of your endeavor, allowing them to fuel

your own creative efforts and the work of those charged with moving the venture forward on all levels.

Finally, we'll look at an age-old question: How do you know when to hold and when to fold? We'll explore how so many people misinterpret the relief from anxiety when you pull away from the creative process as reclaiming peace of mind instead of what it so often is: the fleeting sensation of dreams dying. Then we'll consider a set of questions and metrics that rise above the amorphous answer "You just know," often offered almost by rote, and provide a more rational framework for making what is so often a brutally difficult call.

If you're someone with a natural and unrelenting ability to lean into risk, judgment, and uncertainty on a level that allows you to make what nobody else can make, this book will show you how to do it better, faster, and with less suffering (and, no, suffering is not mandatory).

If you feel organically unable to survive the angst of creation long enough to bring genius to life, we're about to hack the system for you. This book will give you a better understanding of your own creative process and a set of concrete daily practices and environmental changes that will allow you to reframe uncertainty, risk, and exposure as allies for creating and innovating on a level you never thought possible.

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WHY UNCERTAINTY MATTERS

WHETHER YOU'RE WORKING on a team charged with driving business innovation, writing a novel, choreographing a dance, starting a company, or coding an app, the creative process follows a similar overarching progression. It starts with a question—one that's different for every quest and every creator.

When you begin, nothing is certain save the drive to create something worth the effort. The more certain you are of the answer or the outcome in advance, the more likely it is to have been done already—to be derivative—and the less anyone will care, including you. Anything certain has already been done.

From this place of unknown possibilities and endings, the process moves through its many phases and creation crux moves. Information is gathered, options explored, hooks laid down, colors mixed, numbers crunched, and experiments completed. Countless decisions have been made, new ideas formed, tested, expanded, and killed, until finally the endeavor reaches a place of maximum constraint or final form. An amorphous idea becomes words in a printed book. Feelings

about movement, light, color, and energy become oil on canvas. Riffs, beats, hooks, and choruses become completed tracks. Music and movement become a dance. Numbers, processes, forms, and functions become platforms. A desire to serve a community and take away its pain becomes a business, a service, a solution.

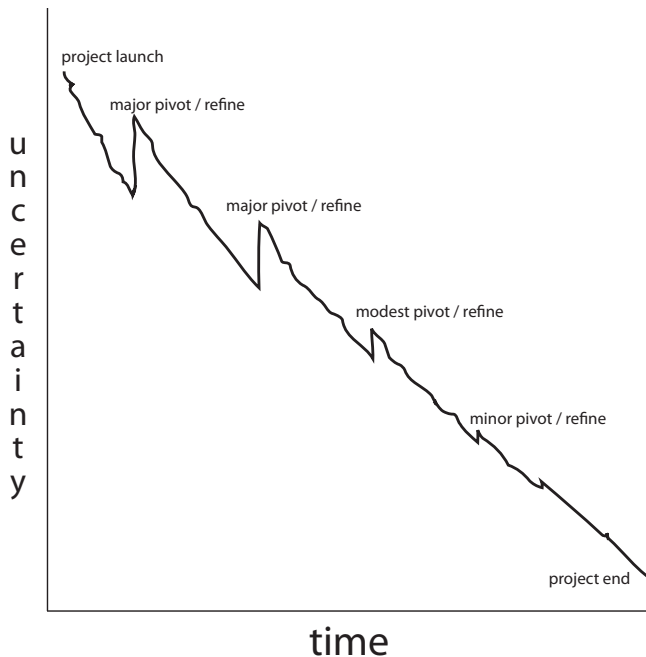
The progression, however, is anything but a straight line. In the early days, in order to justify action, risk, investment, and exposure to criticism, you need to make assumptions. Some are based on fact, but others are outright leaps of faith. Along the way, while some will be validated, others will be eviscerated, proven to have been anything from near misses to complete garbage.

In the world of entrepreneurship, one of the happiest days in the life of a start-up founder is the day she gets funded. It puts money in the bank, and it's a huge vote of confidence in the team, the vision, the business, and the model. The smartest investors out there are saying, "Yes, we believe in you." The problem is, more often than not, that smart money, along with the founders themselves, are utterly wrong. The business they've all rallied around is built upon bad information that is soon to be disproven on a level that, without adaptation, will tank the business and vanish the investment.

When these moments along the creation path happen, you have a choice to make. You can strap on your vision blinders, ignore the fact that you've gone off the rails, and keep to your original plan. Or you can stand up and make a conscious choice to wade back into uncertain waters, knowing you've now invested time, money, and energy in an endeavor that, without substantial alteration, is going to end up a dud. These are tough moments, and ones that no creator in any realm can avoid.

The chart on page 17 shows the uncertainty dynamic over time in nearly any creative process.

The big jumps in uncertainty are the creation crux moves. For a painter, it might be the moment you come face to face with the fact



that your current painting or collection just isn't working. For an entrepreneur, it might be when you've gained enough information to prove your assumptions wrong. For a development team leader or hacker, it could be an awakening to the understanding that the solution you've been developing won't do what you want it to. Notice also that in addition to the big realizations and changes in course, the line itself is jagged. This represents the understanding that at no point does uncertainty entirely go away. It's always there, offering up a constant stream of less disruptive questions and challenges.

We'll spend a lot more time focusing on how to recognize these moments and what to do about them. We'll find that these moments often come not only with elevated levels of uncertainty, but with two other psychic horsemen of innovation—exposure to judgment and risk of loss. Just like uncertainty, their existence is mandatory, despite their destructive potential.

For many, even the possibility of being criticized takes you sailing

back to every moment of angst you've experienced in your life when you felt somehow judged for not living up to someone else's or even your own expectations. Judgment is often experienced as pain, but it's really just feedback data. All that angst surrounding it is just emotional sludge, the by-product of tactless delivery or the creator's own hang-ups.

Creators need data. They need judgment, feedback, and criticism. Without them, there's no way to know whether what you're creating is working or not. When you base your actions on random guesses, rather than on relevant information, growth and movement toward brilliance slow dramatically or grind to a halt. Kill constructive judgment and you retard growth, adaptation, and evolution.

The same applies to the risk of loss. Whenever you set out to do what's never been done before, or never been done in the way you want to do it, you risk losing all sorts of things—time that could have been spent doing something else, money that could have been saved, prestige, status, income, or the perception of security. But the possibility of loss is also a signpost that what you're doing really matters, that you're vested in both the process and the outcome. Knowing that fuels a deeper commitment to action and to striving not just to create something, but to create something amazing. Risk of loss has to be there. You cannot create genius without having skin in the game. Kill the risk of loss and you destroy meaning and one of the core motivations for action.

It's tough enough to deal with uncertainty, risk, and judgment in the early days of any creative endeavor. Not knowing on day one how it's going to end or what it will look like when it's complete can be paralyzing for many. It's brutally hard to act in the face of incomplete information or assurances that you're on the right path. But it's that very lack of assurance that also serves as proof that the journey you're embarking on is not derivative. That the quest and the potential outcome are unique. That both will matter.

Once you're deeper into an endeavor, how you respond to the realization that your core ideas, hypotheses, and beliefs were dead wrong is often the determining factor in your ability not only to move forward from that point, but to adapt to the information, kick-start a new wave of creativity and innovation, and integrate the lessons from this awakening in a way that allows you to create something even better than, though often radically different from, your initial concept.

In fact, a 2008 study led by Professor Franck Zenasni, published in the *Journal of Creative Behavior*, revealed “tolerance for ambiguity” to be “significantly and positively related” to creativity. Working with a population of parents and their adolescent children, Zenasni and his team measured each participant’s creativity using a story-writing task, a divergent-thinking task, and a self-evaluation of creative attitude and behavior. Participants then completed two assessments that measured tolerance for ambiguity. The data revealed a strong link between the creativity and tolerance for ambiguity. Explaining the results, Zenasni argues that tolerance for ambiguity “enables individuals to not be satisfied by partial or non-optimal solutions to complex problems. People who tolerate ambiguity may be able to work effectively on a larger set of stimuli or situations, including ambiguous ones, whereas intolerant individuals will avoid or quickly stop treating such information.”

The more you're able to tolerate ambiguity and lean into the unknown, the more likely you'll be to dance with it long enough to come up with better solutions, ideas, and creations.

This finding largely mirrors what we've seen unfold in the lives of the greatest creators and innovators for generations. However, in the context of creativity and innovation, the use of the word “tolerance” is troubling. It frames the experience of uncertainty as one to be endured and suffered rather than invited and embraced as a signpost of opportunity. In the context of creativity and innovation, then, it's more constructive to replace the phrase “tolerance for ambiguity” with “willingness to embrace the unknown.”

Some of the greatest innovation and success comes from taking the endeavor a step beyond embracing and downright bum-rushing uncertainty, risk, and criticism.

AMPLIFYING UNCERTAINTY

In mid-2004, a parade of newly minted investment bankers bounced their way down the hallways of two of the most venerable institutions on Wall Street. On paper, that first day, the two groups looked pretty similar: The new bankers, graduates of top schools, were a healthy mix of introverts and extroverts, risk managers and cowboys. All were exceptionally bright, with killer quantitative and analytic skills. All were driven to prove their worth, move up the heavily gilded ladders of power and prestige, do the biggest deals, and make insane amounts of money.

One of those groups was about to be whacked in their heads like never before. And the whacking would last for years. Actually, it would never go away—they'd just learn how to embrace it. Once they did, they'd find themselves able to pull off things that would have left the other group vomiting in the bathroom. They'd develop the ability to solve problems, create and innovate, manage deals, and not only handle but seek out and harness mass levels of uncertainty, levels that would make the average junior banker quake and that would turn the average human into a babbling puddle of anxiety.

The two banks, it turns out, deliberately built their core philosophies, modes of operations, and culture around radically different ideals. For her book *Bullish on Uncertainty* (2009), business professor Alexandra Michel conducted a three-year study of the two banks.

One bank—we'll call it Traditional Bank—was fairly typical of Wall Street institutions. It was built around specific roles and groups, high levels of specialization, best practices, and the quest to identify and extinguish as much uncertainty as possible. When new clients

came in, they were pitched by the group leaders: senior bankers with “names” in the industry. Once landed, specialized teams relied largely on the lessons and experiences of the past and established deal analogues to guide how they would create solutions for new clients. Traditional Bank was profitable and the bankers strongly identified with their roles, but they were not known as innovators or market leaders.

The second bank—we’ll call them Innovation Bank—couldn’t have been more different. Rather than adopting a stance that worked to eliminate uncertainty, the entire firm was built around the idea of intentionally amplifying uncertainty. There were no well-defined roles or groups, no deal analogues, no star players, no standard approaches. New clients were as likely to be pitched by a junior associate as they were to see a senior partner. Once a client was landed, deals weren’t staffed by specialized teams, but rather were led by even the most junior bankers, who were charged with “figuring it out” and forced to reach out to and rely on the collective resources of the entire firm. Bankers were told not to look at how similar deals were done in the past, but rather to look at the real-time needs, challenges, and circumstances of the clients, to digest everything, and to come up with the best possible solutions for those clients, given their unique circumstances at that moment in time.

There were no best practices or formal training. It was very much sink or swim. There were no rock stars, since every person was instructed to draw on the combined resources of the firm to assemble a spot team in real time. This approach was designed to deliberately amplify uncertainty, to force bankers to constantly reexamine what they were doing and why, and to keep them from falling into a pattern in which their perception of knowledge, expertise, and prestige blinded them to seeing the needs of any given client at any given time.

At Innovation Bank, certainty was the devil, hubris manifested, the source of big misses and bigger mistakes. It led, according to their

philosophy, to people's falling back on the belief that they knew better than the market.

Innovation Bank was known on the street as an innovator, an institution that consistently pushed the envelope, led the market, and was very successful. When times were good, both banks prospered. But as Michel shared with me in an interview, when the market fell apart in 2008 and 2009, Innovation Bank kept humming along. Traditional Bank collapsed under the weight of the market.

What's even more striking than the impact of Innovation Bank's adoption of an amplified uncertainty strategy is the impact it had on the investment bankers themselves. During the first few years, not surprisingly, the Innovation bankers experienced what could only be described as a fair amount of suffering. They lived in an environment defined by constant change and uncertainty, yet they were still evaluated and judged based on their success.

It wasn't unusual for them to report feeling overwhelmed and anxious as they tried to navigate those waters with very little structure. They immediately had to abandon a sense that they could rely on their own abilities and knowledge to get any deal done. Instead, they learned to harness all the resources of the firm and respond with the freshest eyes possible to what was in front of them.

I asked Professor Michel if the reputations of each bank served to preselect applicants based on personality preferences during the hiring process. Not at all, she said. Members of the pool of prospective bankers were remarkably similar before they joined either Traditional or Innovation Bank. But after a few years, the difference was stunning. The environment literally changed not only how the surviving bankers thought, but how they solved problems, identified themselves, accrued ego, and remained open to input in the quest to create the best possible outcome.

When people left Traditional Bank, they would generally go to a similar position in another bank. That was what they knew and what

they were groomed for. When people left Innovation Bank, many left the field entirely, having gained not only a deep knowledge of banking, but an additional universe of skills and a mind-set that prepared them not just to thrive as bankers, but to be able to create extraordinary outcomes in nearly any setting or industry.

EXALTING UNCERTAINTY

On a Friday evening in 1997 at the University of Manchester, esteemed scientist Andre Geim was busy at work. The project at hand? Levitating frogs.

Not to be outdone, in 2003 Geim and fellow researcher Konstantin Novoselov turned their Friday evenings to the work of creating “gecko tape,” micro-engineered tape that mimics the physics geckos use to adhere to nearly any surface. Proof of concept came in the form of a Spiderman action figure dangling from the ceiling, adhered only by a tiny piece of the gecko tape that, according to the researchers, could allow a human being the same experience. Sadly, though many in the lab volunteered to test the theory by hanging on the wall outside the lab building, Geim and Novoselov had trouble justifying the large amount of money it would have taken to create enough tape to humanize the experiment.

Both “scientific diversions” came out of what Geim and Novoselov refer to as their Friday evening experiments, where they, in Novoselov’s words:

just do all kinds of crazy things that probably won’t pan out at all, but if they do, it would be really surprising. Geim did frog levitation as one of these experiments, and then we did gecko tape together. There are many more that were unsuccessful and never went anywhere (though I still had a good time thinking about and doing those experiments, so I love them no less than the successful ones).

If this sounds like folly for a lab renowned for extraordinary research and endowed with a healthy stream of funding for “serious” work, think again. Out of these same Friday evening experiments came a series of discoveries about a substance called graphene—a single layer of graphite strong enough to build a hammock for a cat that would weigh as little as a whisker—that landed the pair the Nobel Prize in 2010.

At around the same time Geim and Novoselov were creating superhuman adhesives and hover-frogs, some 6,000 miles away on a sprawling campus in northern California, former Google employee number 23, Paul Buchheit, was busy at work on a seemingly equally crazy idea. He was creating a browser-based, free e-mail service that would scan e-mails and serve up ads related to the content of the message. The entire thing was coded in a day, though it would take years and many iterations before Buchheit’s Gmail would grow into one of Google’s biggest successes and most pervasively used products.

In its infancy, the product was filled with bugs and controversy, and it could have easily been killed. But it fell under what Google calls its 20% time, a core tenet of Google’s philosophy that says employees are not only allowed but expected to allocate 20% of their time, or a day a week, to projects that interest them. This allocation of time has led to the creation of a number of Google’s biggest products and profit centers, and has driven a mass expansion of users and resulted in billions in annual revenue.

As Buchheit shared on his blog in January 2009:

If you want innovation, it’s critical that people are able to work on ideas that are unapproved and generally thought to be stupid. The real value of “20%” is not the time, but rather the “license” it gives to work on things that “aren’t important.”

The power of Geim and Novoselov’s Friday evening experiments and Google’s 20% time is not that they’re permitted, but rather that

they are baked into the core ideals and philosophy of the organizations. They are public statements that tell all the employees that taking risks, trying nutty things, and leaning into uncertainty will be met with acceptance, regardless of the outcomes, and will be an essential part of what they're there to do.

IT'S NOT JUST FOR START-UPS AND TECH

That's all well and good, you may say, for labs and organizations that are in the business of innovation, but what about real companies that create "real" products and services? What about more established retailers whose customers tend to be far less forgiving of experimentation and inconsistency?

Starbucks is a great example. Nobody wants their morning latte messed with. For years, former Starbucks International president Howard Behar, along with Howard Shultz and Orin Smith, formed a powerhouse governing trio, known internally as H2O, that helped drive the Starbucks brand from a few dozen stores to a worldwide experiential retail behemoth.

Starbucks is known in the retail consumer product and experience world as a true innovator. But in the early days they were a very different business. Their focus was so narrow and they were so determined to keep it that way that the Frappuccino brand almost never came to be.

Dina Champion was one of the first Starbucks district managers in Southern California. She noticed that Starbucks' competitors were selling a beverage that her stores didn't have, so she asked Behar to come down and try the frozen coffee treat. He did, liked it, and figured if they made their own version they could sell about thirty a day in their stores. At the time, that would have represented a 5% bump in average store volume.

So Behar went back to Seattle and said, “Hey, we’ve got to do this.”

There was a resounding “no” vote from the team. “We don’t do that at Starbucks,” they said. “We’re in the coffee business.” He called Campion with the bad news, and she asked if she could test out the beverage in her stores anyway. Behar knew he was going against the whole team but gave her the go-ahead anyway, and the sales were remarkable. Once again, Behar presented the new beverage to the team, and this time Schultz approved a ninety-day test. That one hard-fought experiment has now turned into a multibillion-dollar-a-year product line.

The real challenge with experimenting in a retail operation like Starbucks is that, unlike tech companies that are explicitly in the business of creating new things, retail businesses want sameness and consistency. They don’t want imperfection—the people they’re serving want to be sure that every time they go into a Starbucks store, wherever they order, it’s exactly the same.

Still, even in that highly controlled environment, you need to give some room to uncertainty. Behar calls it “texture,” adding, “that’s when the good stuff comes. It’s when people are fooling around. And then you’ve got to be able to figure out how to harvest that stuff, how to listen to it.”

Inviting the unknown isn’t just for tortured solo creators. Even in the biggest, most established retailers, it is the lifeblood of innovation.

HAILED BUT REVILED

Linguistics aside, this much is clear. The ability not only to endure but to invite, amplify, and exalt uncertainty, then reframe it as fuel is paramount to your ability to succeed as a creator. Visionary innovation and creativity cannot happen when every variable, every outcome, every permutation is known and has been tested and validated in ad-

vance. You cannot see the world differently if it's already been seen in every possible way. You cannot solve a problem better if every solution has already been defined. You cannot create great art if every way to stroke a canvas, connect a note, or grace a stage has already been inventoried, categorized, and laid bare for all to see. If everything is known and certain, that means it's all been done before. And creation isn't about repetition.

Genius always starts with a question, not an answer. Eliminate the question and you eliminate the possibility of genius. However, that's where things get really sticky. For all but a rare few, "living in the question" hurts. It causes anxiety, fear, suffering, and pain. And people don't like pain. Rather than lean into it, we do everything possible to snuff it out. Not because we have to, but because we can't handle the discomfort that we assume "has to" go along with the quest. Snuffing out uncertainty leads to a sea of prematurely terminated mediocre output, when that "sweet mother of God" breakthrough was just over the hump if only we'd had the will to embrace uncertainty, risk, and judgment and hang on a bit longer. If only we'd learned how to harness and ride rather than hunt and kill the butterflies that live in the gut of every person who strives to create something extraordinary from nothing.