The Myths of Innovation

创新的神话 第二版
（影印版）

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Commitment to research accuracy

In the original edition of this book, I took great pains to get the facts, sources, and references right. However, as you'll learn in Chapter 2, history is more challenging than we think it is.

In this paperback edition, we corrected more than 40 issues, from typos to misreferences to clarifications of facts from history. They were mostly minor issues that were easy to correct. In some cases, I found better evidence and more accessible references.

But one can never be sure. It is possible, despite enlisting the help of an army of fact-checkers, that I have misrepresented facts or distorted the work of others, or that new evidence will surface that contradicts the facts I use. I promise that any oversights are unintentional. More importantly, I believe my arguments and the thoughts they provoke are valuable despite any inaccuracies.

As I've committed to in the past, I'll do my best to collect and review any corrections or improved references as I'm made aware of them.

All of the URLs and references found in this book will be available online for easier access. Visit *www.mythsofinnovation.com* to either report issues or make use of the references for further study. If you find an issue that has not been listed, please report it at the above URL for other readers' benefit and my own.

Preface for the paperback edition

*By idolizing those whom we honor,
we do a disservice both to them and
to ourselves...we fail to recognize
that we could go and do likewise.*

—Charles V. Willie

The other day, while dropping off my dry cleaning at the laundromat, I noticed a bright neon sign. It read, "Innovative dry-cleaning service," which, given my authorship of this book, piqued my curiosity. With shirts and pants in hand, I went to the counter and inquired, "So tell me, what are your dry-cleaning innovations?" The young lady behind the register offered only a blank stare. I had to point to the sign and explain what the word meant before she acknowledged, as if I were an idiot, that it was just marketing. As far as she knew, as daughter of the store's owner, there was nothing innovative in how they cleaned clothes (nor how they helped customers).

The word *innovation* has fallen on hard times. There is no innovation superhero, flying around at innovative speeds, using innovative ninja moves to prevent abuse of the word. Simply saying something is great doesn't make it so, yet as the success of marketing and advertising demonstrates, this doesn't stop people from trying. The i-word is thrown around so frequently it no longer means anything.

Today, and for a long time, the majority of what most people believe about ideas—from where they originate to how they are made into things that change the world—is based on sketchy sources. We watch movies featuring the success stories, and we hear legendary tales of geniuses and their flashes of insight, tales passed down from generation to generation, but few go back to see whether any of those stories actually happened. And when we try to work with ideas ourselves, we experience a reality so distant from what we've been taught to expect that it's easy to give up. Even if we fight through the confusion, we're chasing our guesses about what the process is supposed to be like. My goal is to turn all of this around.

I've spent years studying the history of creative thinking, especially around invention and entrepreneurship, digging up the truths behind the legends. I wanted to uncover what really happened because I believed knowing the truth would give me the greatest chances of learning and improving my own abilities, and teaching others to do the same. Each chapter explores one of the 10 most pervasive and misleading myths, reveals the facts, and offers advice and wisdom that you can apply to your own work.

This is the book, based on evidence rather than wishful thinking, I wish someone had given me when I started my career almost 20 years ago.

Before I get out of your way so you can begin Chapter 1, I need to say one last thing about the word *innovation*. It's not a word I'm fond of. It's used all too often today, and it has lost any significance. More useful to you, perhaps, is that of its many meanings you'll find in a dictionary, the most potent is *significant positive change*. If the thing offered represents a significant positive change for whomever it is offered to, by definition, it's an innovation. This calls into question statements such as "We innovate every day" or "We are in the innovation business," because if something is done regularly, how can it represent significant change? Even if it's possible, the turmoil that rate of change would create is unlikely to be positive (except for the handful of people who profit from the chaos). I carry a chip on my shoulder for anyone who uses the word innovation too often.

This definition also burdens creators to understand the recipients' perspective of whatever they make. If it's a positive change for the customer, even if the ideas being used have been around for years, it's an innovation to them. This is great: before anyone can call something an innovation, they need to find happy customers who would also use that label for it (or who would say, "This is a significant positive change!"). This might just mean that what's old and tired to you is the new hotness to someone else. Over a billion people in the world don't have electricity or clean drinking water. If you put a working 7-Eleven mini-mart, with refrigeration, plumbing, and WiFi Internet access next to their hut, they'd certainly call the store, and everything inside, an innovation. And by the same token, if a space alien landed in your backyard with an old, broken-down warp engine, something he and all his alien buddies have had for years, it would still be an innovation to you.

To practice what I preach, the word innovation appeared in the hardcover edition of this book about 65 times, down from 150 in the early manuscript. For this paperback edition, I added four new chapters focused on putting ideas to work, which raised that count slightly.[1] Tracking the word was a specific goal because it

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[1] Three of the four chapters are heavily revised essays that originally appeared on *www.scottberkun.com*.

forced me to communicate clearly. I recommend you and your colleagues do the same; for example, if you mean "We want our business to grow," say it—don't mask the meaning by using the i-word. If you want to be perceived as being a creative company, fine. Perhaps your ambition is to make products that lead in market share, or to have passionate, happy customers. Excellent. Write those exact words down. Reserve the i-word for...nothing. In the few instances where you are honestly taking the big risks necessary to achieve significant positive change, talk about what those risks are and what the positive changes will be. The specifics of what you mean will inspire and empower more people than any overused business-school marketing jargon ever could.

Be well, be bold, and have fun—I hope to see you next time I'm on tour.

—Scott Berkun
Seattle, Washington, USA
August 2010

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The myth of epiphany

While waiting in the lobby of Google's main building, I snuck into the back of a tour group heading inside. These outsiders, a mix of executives and business managers, had the giddy looks of kids in a candy factory—their twinkling eyes captivated by Google's efforts to make a creative workplace. My clandestine activities unnoticed, we strolled together under the high ceilings and brightly colored open spaces designed to encourage inventiveness. No room or walkway was free of beanbag chairs, ping-pong tables, laptops, and Nerf toys, and we saw an endless clutter of shared games, brain-teasing puzzles, and customized tech gadgetry. The vibe was a happy blend of the MIT Media Lab, the Fortune 500, and an eccentrically architected private library, with young, smart, smiley people lingering just about everywhere. To those innocents on the tour, perhaps scarred survivors of cubicle careers, the sights at Google were mystical—a working wonderland. And their newfound Google awe was the perfect cover for me to tag along, observing their responses to this particular approach to the world of ideas (see Figure 1-1).

Figure 1-1. One of the creative interiors of Google's main campus in Mountain View, California.

The tour, which I took in 2006 after they moved to their Mountain View headquarters, offered fun facts about life at Google, like

the free organic lunches in the cafeteria and power outlets for lap-
tops in curious places (stairwells, for example), expenses taken to
ensure Googlers are able, at all times, to find their best ideas.
While I wondered whether Beethoven or Hemingway, great minds
noted for thriving on conflict, could survive in such a nurturing
environment without going postal, my attention was drawn to
questions from the tourists. A young professional woman, barely
containing her embarrassment, asked, "Where is the search
engine? Are we going to see it?", at which only half the group
laughed. (There is no singular "engine"—only endless dull bays of
server computers running the search-engine software.)

The second question, though spoken in private, struck home. A
30-something man turned to his tour buddy, leaning in close to
whisper. I strained to overhear without looking like I was eaves-
dropping. He pointed to the young programmers in the distance,
and behind a cupped hand, he questioned, "I see them talking and
typing, but when do they come up with their ideas?" His buddy
stood tall and looked around, as if to discover something his
friend had missed: a secret passageway, epiphany machines, or
perhaps a circle of black-robed geniuses casting creativity spells.
Finding nothing, he shrugged. They sighed, the tour moved on,
and I escaped to consider my observations.

The question of where ideas come from is on the mind of anyone
visiting a research lab, an artist's workshop, or an inventor's
studio. It's the secret we hope to see—the magic that happens
when new things are born. Even in environments geared for cre-
ativity like Google, staffed with the best and brightest, the elusive
nature of ideas leaves us restless. We want creativity to be like
opening a soda can or taking a bite of a sandwich: mechanical things
that are easy to observe. Yet, simultaneously, we hold ideas to be
special and imagine that their creation demands something beyond
what we see every day. The result is that tours of amazing places,
even with full access to creators themselves, never convince us that
we've seen the real thing. We still believe in our hearts there are top-
secret rooms behind motion-sensor security systems or bank-vault
doors where ideas are neatly stacked up like bars of gold.

For centuries before Google, MIT, and IDEO—modern hotbeds of
innovation—we struggled to explain any kind of creation, from
the universe itself to the multitudes of ideas around us. While we

can make atomic bombs and dry-clean silk ties, we still don't have satisfying answers for simple questions like: Where do songs come from? Is there an infinite variety of possible kinds of cheese? How did Shakespeare and Stephen King create so much, while we're satisfied watching sitcom reruns? Our popular answers have been unconvincing, enabling misleading, fantasy-laden myths to flourish.

One grand myth is the story of Isaac Newton and the discovery of gravity. As it's often told, Newton was sitting under a tree, an apple fell on his head, and the idea of gravity was born. It's entertaining more than truthful, turning the mystery of ideas into something innocent, obvious, and comfortable. Instead of hard work, personal risk, and sacrifice, the myth suggests that great ideas come to people who are lucky enough to be in the right place at the right time. The catalyst of the story isn't even a person: it's the sad, nameless, suicidal apple.

It's disputed whether Newton ever observed an apple fall. He certainly was never struck by one, unless there's secret evidence of fraternity food fights while he was studying in Cambridge. Even if the apple incident took place, the legend discounts Newton's 20 years of work to explain gravity. Just as Columbus didn't discover America, Newton did not actually discover gravity—the Egyptian pyramids and Roman coliseums prove that people understood the concept well before Newton. Rather, he used math to explain more precisely than anyone before him how gravity works. While this contribution is certainly important, it's not the same as discovery.

The best possible truth to take from the apple myth is that Newton was a deeply curious man who spent time observing things in the world. He watched the stars in the sky and studied how light moved through air, all as part of his scientific work to understand the world. It was no accident that he studied gravity. Even if the myth were true and he did see an apple fall, he made so many other observations based on ordinary things that his thinking couldn't have been solely inspired by fruity accidents in the park.

Newton's apple myth is a story of epiphany or "a sudden manifestation of the essence or meaning of something,"[1] and in the mythology of innovation, epiphanies serve an important purpose.

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[1] This approximates the third entry in *Merriam-Webster's* online listing. The first two are religious in nature: *http://www.m-w.com/dictionary/epiphany.*

The word has religious origins, and it initially meant that all insight came by divine power. This isn't surprising because most early theologians,[2] including Christians, defined God as the sole creative force in the universe. As a rule, people believed that if it's creative, it's divine, but if it's derivative, it's human. Had you asked the first maker of the wheel[3] for an autograph, he'd likely be offended that you'd want his name instead of his god's (one wonders what he'd think of Mr. Goodyear and his eponymous tires).[4]

Today, we use epiphany without awareness of its heavy-duty heritage, as in "I had an epiphany for rearranging my closet." While the religious connotations are forgotten, the implications remain: we're hinting that we don't know where the idea came from and won't take credit for it. Even the language we use to describe ideas—that they *come* to us or that we have to *find* them—implies that they exist outside of us, beyond our control. This way of thinking is helpful when we want to assuage our guilt over blank sheets of paper where love letters, business plans, and novels are supposed to be, but it does little to improve our innate creative talents.

The Greeks were so committed to ideas as supernatural forces that they created an entire group of goddesses (not one but nine) to represent creative power; the opening lines of both *The Iliad* and *The Odyssey* begin with calls to them.[5] These nine goddesses, or *muses*, were the recipients of prayers from writers, engineers, and musicians. Even the great minds of the time, like Socrates and Plato, built shrines and visited temples dedicated to their particular muse (or muses, for those who hedged their bets). Right now, under our very secular noses, we honor these beliefs in our language, as the etymology of words like museum ("place of the muses") and music ("art of the muses") come from the Greek heritage of ideas as superhuman forces.

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[2] Robert S. Albert and Mark A. Runco, "A History of Research on Creativity," in *Handbook of Creativity*, ed. Robert J. Sternberg (Cambridge University Press, 1998), 16–20.

[3] The wheel's prehistoric origins are a misnomer. The first wheels used for any practical purpose date back to around 3500 BCE. Start with *http://www.ideafinder.com/history/inventions/wheel.htm*.

[4] The rubber tire was once a big innovation, and the history of Goodyear is a surprisingly good read: *http://www.goodyear.com/corporate/history/history_overview.html*.

[5] Homer, *The Iliad* (Penguin Classics Deluxe Edition, 1998), and *The Odyssey* (Penguin Classics Deluxe Edition, 1999).

When amazing innovations arise and change the world today, the first stories about them mirror the myths from the past. Putting accuracy aside in favor of echoing the epiphany myth, reporters and readers first move to tales of magic moments. Tim Berners-Lee, the man who invented the World Wide Web, explained:

> *Journalists have always asked me what the crucial idea was or what the singular event was that allowed the Web to exist one day when it hadn't before. They are frustrated when I tell them there was no Eureka moment. It was not like the legendary apple falling on Newton's head to demonstrate the concept of gravity...it was a process of accretion (growth by gradual addition).*[6]

No matter how many times he relayed the dedicated hours of debate over the Web's design, and the various proposals and iterations of its development, it's the myth of magic that journalists and readers desperately want to uncover.

When the founders of the eBay Corporation[7] began, they struggled for attention and publicity from the media. Their true story, that they desired to create a perfect market economy where individuals could freely trade with each other, was too academic to interest reporters. It was only when they invented a quasi-love story—about how the founder created the company so his fiancée could trade PEZ dispensers—that they got the press coverage they wanted. The truer story of market economies wasn't as palatable as a tale of muse-like inspiration between lovers. The PEZ story was one of the most popular company inception stories told during the late 1990s, and it continues to be told despite confessions from the founders. Myths are often more satisfying to us than the truth, which explains their longevity and resistance to facts: we *want* to believe that they're true. This begs the question: is shaping the truth into the form of an epiphany myth a kind of lie, or is it just smart PR?

Even the tale of Newton's apple owes its mythic status to the journalists of the day. Voltaire and other popular 18th-century writers spread the story in their essays and letters. An eager public, happy to hear the ancient notion of ideas as magic, endorsed and embellished the story (e.g., the apple's trajectory moved over time, from being

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[6] Tim Berners-Lee, *Weaving the Web* (HarperCollins, 1999).

[7] Adam Cohen, *The Perfect Store: Inside eBay* (Back Bay Books, 2003).