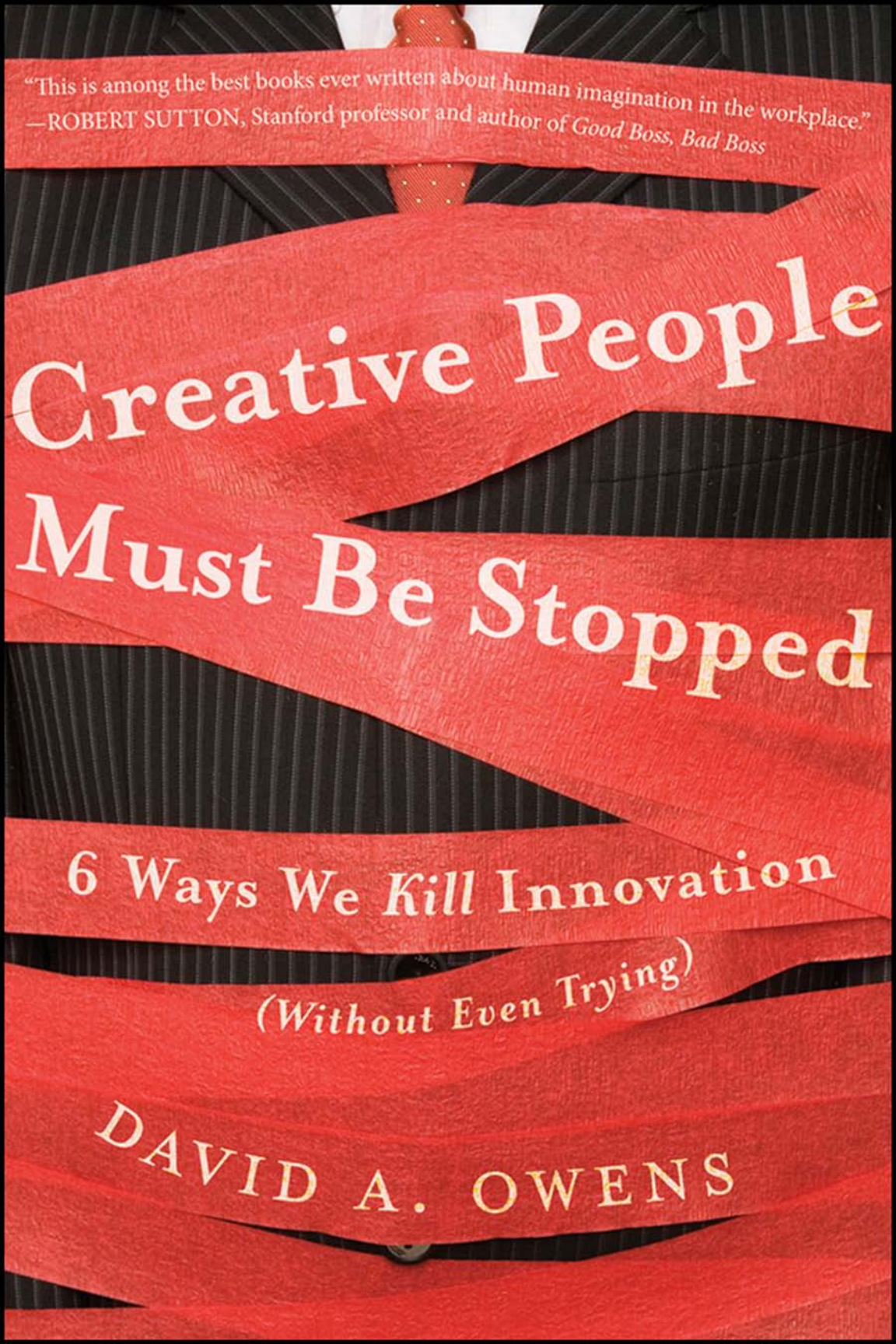
"This is among the best books ever written about human imagination in the workplace."
—ROBERT SUTTON, Stanford professor and author of Good Boss, Bad Boss
Creative People Must Be Stopped
6 Ways We Kill Innovation
(Without Even Trying)
DAVID A. OWENS

Praise for *Creative People Must Be Stopped*

"Read *Creative People Must Be Stopped* only if you are serious about making stuff, and making stuff happen. This is a survival guide for navigating a world that is dangerous for good ideas. And it is required reading for the creative people who love them!"

—Peter Durand, founder, The Center for Graphic Facilitation, and creative director, Alphachimp Studio Inc.

"This is no rarefied academic treatment on innovation as an abstract ideal, but a nuts-and-bolts handbook to dissecting our thought patterns about innovation. Owens dispels the myth that innovation is a binary trait that either exists or does not in a given product, process, or business model. *Creative People Must Be Stopped* addresses the myriad ways that novel ideas can fail in the marketplace. Working through a combination of thought experiments and real-world examples, the book demonstrates how failures in understanding the context for innovation can prove every bit as deadly to progress as failures of imagination."

—Mark Rowan, president, Griffin Technology Inc., maker of iPod, iPhone, and iPad accessories

"*Creative People Must Be Stopped* is among the best books ever written about human imagination in the workplace. David Owens is a master innovator, having practiced his craft as a product designer, researcher, teacher, creativity coach, and executive. The breadth and depth of his experience fills every page of this little gem, which is chock-full of hundreds of big and little steps that you can take right now to do more creative work and to lead more innovative teams and organizations."

—Robert Sutton, professor, Stanford University, and author of the *New York Times* bestseller *Good Boss, Bad Boss*

Creative People Must Be Stopped

Six Ways We Kill Innovation (Without Even Trying)

David A. Owens

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Contents

This book is dedicated to my lovely ladies,
Jennifer, Charlotte, and Adelaide

Introduction

Creative People Must Be Stopped!

Given that a search on the term "innovation" returns more than forty thousand book entries on Amazon.com, does the world really need another book on the topic? Maybe the better question is *Why do so many organizations continue to kill good ideas and fail in their innovation attempts despite this wealth of research and advice?*

Innovation is a natural and desirable outcome of human interaction, yet it is systematically stopped in organizations, often by the very people who say they want it and who stand to benefit from it. I term these systematic stoppages *innovation constraints*.

Over the course of ten years of research, teaching, and consulting, I have identified the six dominant types of constraints that can keep creative new ideas from being formulated, developed into marketable products and services, or adopted by the intended users. This book organizes these innovation killers into a conceptual framework that demystifies what innovation is, how it happens, and how we stop it without even trying. In my executive programs, workshops, talks, and consulting engagements, thousands of managers, executives, and innovators have successfully used the framework to diagnose the primary causes of innovation failure in their organizations and to develop strategies for overcoming them. My goal in

this book is to bring this power of understanding, diagnosing, and removing constraints on innovation to many, many more.

Although this book relies on academic research in a variety of disciplines to help explain why things happen the way they do, it is above all a practical guide to a new way of thinking about innovation, complete with diagnostic and other tools, as well as suggestions for action. It is not, however, a laundry list of "Do this, don't do that" advice. Rather, this book is aimed at giving aspiring innovators and managers of innovation the conceptual and practical basis they need to develop their own actionable insights and smart strategies for responding to the challenges of coming up with exciting new ideas and bringing them to fruition.

CHAPTER

1

The Context of Innovation

Why Everyone Wants Innovation but No One Wants to Change

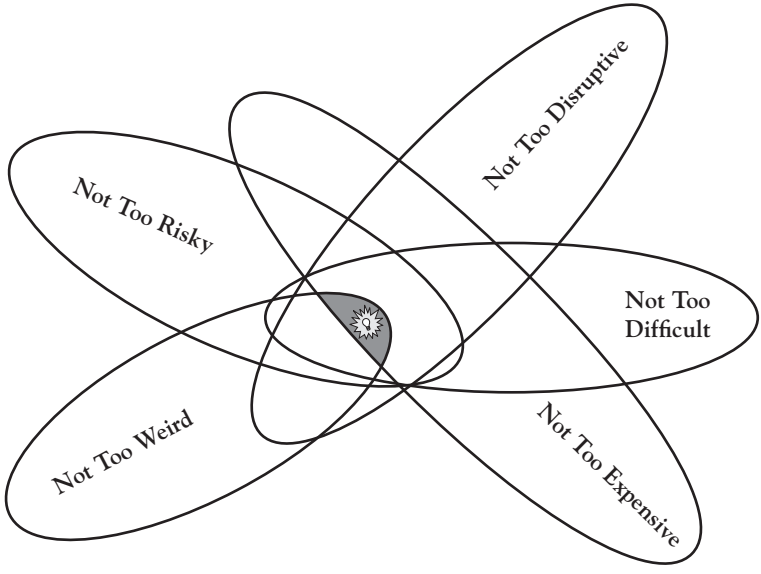

Figure 1.1

Our firm was in a bit of a slump. We had a hugely successful product a few years ago, but now we were facing increasing pressure to come up with the follow-up product, the next big thing. One day the big boss called the team into the office and said,

"People, this is serious. It has got to be big! Look, I really need you to think outside the box—don't constrain yourselves! Listen, I really want you to push the boundaries *way* out there on this one; remember, we're talking blue-sky this time—a real breakthrough!"

So the team and I ran off, excited, and "box be damned," we started thinking big. Just two sleepless weeks later, we had found it! We had come up with a *great* idea! So we set up a meeting to present it. In the meeting the boss listened for a while, asking a question or two. Then he let out a loud sigh and said,

"Hmm . . . this looks expensive . . . I mean, I appreciate how you people are thinking outside the box, but I hope you realize that we have a business to run here. Now remember that I *do* want you to keep thinking outside the box, but can you try to make sure that it's not quite so expensive?"

So off we went to find another idea. About a week later we had come up with a less expensive idea that was even better. In the big meeting, the boss again asked just a question or two before he sighed and said,

"This looks complicated. I mean I appreciate how you people are thinking outside the box, but I hope you realize that we've got to be able to make this in our plant. I want you to keep thinking outside the box, but can you try to make sure that we can at least manufacture the thing in-house?!"

Next idea: "Too disruptive!"

Next idea: "Too risky!"

Next idea: "Too weird!"

After about six months of this, my team finally came up with the idea, one that we believed met every requirement the boss had given us. When we presented it to him, he didn't even bother asking questions. Ten minutes into our spiel, he became agitated and said,

"This looks puny! I mean, I asked you people to think outside the box, and all you can bring me is this puny idea? What's wrong with you people? Don't you know how to be creative?"

As the rate of product and service innovation speeds up, so does the need for a meaningful competitive response. For executives, managers, and employees in many organizations, this "innovation imperative" has been successfully met. Witness the many amazing innovations heaped upon us in the last ten years, from cell phones to smart phones, from MP3s to online television, from self-balancing scooters to private space travel.

This constant stream of newness left me curious about how executives and managers lead the aspiring innovators in their organizations on a path to successful innovation, so I started to ask them. In my executive programs, workshops, and consulting engagements, I began to ask people to tell me the stories of how innovation was managed and led in their organizations. Invariably they tell me surprising stories like the one you just read.

I have heard these tales of frustration again and again from people in organizations big and small across a wide swath of industries and in countries around the globe. To be fair, the story doesn't always point the finger at the boss as the lead knucklehead in torpedoing innovation efforts. Variations of the story implicate customers, clients, partners, suppliers, colleagues, and even the team itself.

Although I occasionally came across people who have more positive things to say, their stories tend to portray successful innovation in their organizations as isolated incidents or accidents of fate. So even though I had started out wondering how managers lead successful innovation, the impassioned frustration I had heard from thousands of people led me to a different set of questions, the ones at the heart of this book: *Why do people in organizations seem to work overtime ignoring, undermining, blocking, maiming, and killing the innocent, well-intentioned, and sometimes even great ideas in their*

organizations? Why do they so often act as if creative people must be stopped? And *What can we do to change these behaviors so that innovation has a better chance to succeed?*

Why Does Innovation Fail?

There are countless variations on the familiar story of innovations being torpedoed even before they are launched, or of being launched with great fanfare only to sink without a trace once they hit the marketplace. Here are just a few from my personal experience:

- In an experiment aimed at improving its ability to innovate, a large consumer products company known for lean operations, low prices, and derivative products invents a breakthrough product that can launch it to the lead in a large and extremely competitive segment of the industry it serves. Before it can get the product through its development process, the firm lays off all of the people involved with the project, citing financial pressures. The project never regains momentum and is cancelled.
- Because they have an intimate understanding of their clients' businesses, the partners of an accounting consultancy agree to start an innovation practice aimed at helping clients grow their businesses. The new practice stalls when the partners, despite their earlier enthusiasm, refuse to refer their clients to the innovation consultants. The partners want proof that the innovation methods will work without creating any risk for their clients. Without clients to prove or improve their methods, the new practice languishes and eventually shuts down.
- A part-time inventor has the idea to invent a digital picture frame ten years before it becomes a household product. He starts working on the project until an expert from the

electronics industry he meets tells him it's a dumb idea that will be too expensive and not even possible. The inventor gives up all interest in pursuing the project any further.

- A university seeking to increase the rate at which technologies are moved out of the lab and into commercial products undertakes a significant effort to build, house, and fund an organization for the purpose. Successful entrepreneurs avoid the place, saying that the university researchers have no idea what makes an idea a potential commercial success; the university researchers avoid the place, saying that the entrepreneurs have no imagination and care only about making money from their research.
- Consistent with its mission, a performing arts organization seeks to expand its ability to offer more modern and controversial works. After a multiyear capital campaign, it is able to build the larger and more flexible space it needed to support its goal. A few years after moving into the new space, the organization finds itself paying for the expansion by performing even more standards and commercial works than before out of a need to draw larger audiences than the modern, controversial pieces attracted.

On the surface, these stories have little in common beyond the theme of innovation failure. The contexts are very different from one another, the players are diverse, and in each case the causes of the failure seem to be distinctive if not difficult to pinpoint. Yet with the right conceptual tools, I believe we can analyze both failures and successes in innovation efforts. We can discover the common themes that run through stories like these, and in the process derive powerful lessons for how to increase our own chances of success.

Six Perspectives on Innovation

To understand why innovation fails so often, I began combing through the enormous quantity of books, articles, and cases devoted

to innovation and creativity. I quickly found, as you may have also, that these writings seemed to be talking about innovation and related concepts from wildly divergent and often unrelated perspectives. Worse, the perspectives offered by one thinker or researcher conflicted with the insights of others. However, after years of initial confusion, a pattern emerged. There were, I discovered, six basic perspectives on innovation and what impedes it.

One set of books had as their ideology, or basic theory, the unsurprising idea that *the basic requirement for innovation is creative ideas*. Failures of innovation were therefore failures of *ideas*: individuals either did not generate good enough ideas or didn't recognize their good ideas for what they were and chose an inferior one. Intuitively this makes sense—without a good idea to base it on, innovation won't happen. To meet this challenge, you simply need to train people to use the tools and processes that help them "think different," and this will enable them to become better at generating and recognizing good ideas.

A second group of thinkers found this individual-centric view of innovation entirely unconvincing. For them, innovation fails because of a dysfunction in the emotional and cultural climate of the group undertaking an innovation initiative. Supported by experimental research and documented cases, they described precisely the emotional dynamics and social environments that reliably kill, among other things, the engagement, risk-taking, and creative expression necessary for innovation. This perspective could be summed up as *even if you have a roomful of da Vincis, the group's social climate will determine whether an innovation succeeds*. The prescription that follows from this diagnosis is equally clear: fix the group's climate, and you will fix innovation. At this point I had identified two compelling kinds of explanation for the failure of innovation. I probably should have quit while I was ahead. It turned out there were several more to come.

A third perspective came from writers who took an organization-centric approach. These authors convincingly showed how a firm's

strategy, organizational structure, and access to resources were critical to successful innovation. If a firm doesn't have the intention of innovating and moving beyond its past laurels, or if it doesn't have a structure that allows for the free movement of new ideas, or if it doesn't have the human, monetary, or other resources to expend on developing an idea, then it's unlikely to be a fertile source of innovation. With an eye to big bureaucratic organizations like governments, educational institutions, and commodity producers in mature markets, the case seems easy to make: *the problem of innovation is the problem of organizing people in a way that won't kill it.*

A fourth set of writers widened the analytical lens even more and approached the problem of innovation from a market economics perspective. For them, innovation fails when a firm competing among a group of rivals in an industry fails to produce an innovation that the customers in that market are willing to adopt. In this perspective, *innovation fails when buyers do not adopt a new offering because they fail to see the utility and value of it.* If people don't adopt the idea, you may be able to call an idea "creative," but you cannot call it an innovation.

A fifth set of writers opened the lens still wider, emphasizing the social values of the individuals and groups for whom an innovation is intended. Their basic proposition is that *an innovation cannot succeed if a society does not see its ideals and aspirations embodied in it.* As we will discuss later, a good example of this argument is human cloning, or creating a human directly from the DNA of another human. Plants and animals have been successfully cloned in the past, so we might assume that human cloning is technologically possible and arguably would have certain benefits. However, most societies around the world ban the practice on the grounds that it is morally and ethically repugnant. Clearly, innovations that are discordant with societal values are unlikely to succeed.

Finally, a sixth perspective approached failures of innovation from a technological perspective. The premise was simple: some things are just hard to do. It is hard to keep the body alive during

brain surgery, to derive energy from the splitting of uranium atoms in a controlled and safe way, or to plug an oil leak fifty miles offshore and one mile beneath the surface of the ocean. This perspective makes a strong case for the view that *for an innovation to succeed, it has to be technologically feasible*. In this view, the way to avoid failure is to advance our understanding and control of matter and energy through the use of science and technology. In other words, innovation is exactly what we already know as R&D.

Too Much of a Good Thing?

The table summarizes the six perspectives on innovation I have described. All six agree that there are interventions that can make innovation more likely to succeed. The only trouble is that each perspective assigns fault for failures in innovation to a different set of causes and therefore recommends a different set of "fixes."

Six Perspectives on Innovation

Why Does Innovation Fail?	How Do We Fix Innovation?	Focus of Analysis
Individuals do not "think different"; they don't generate enough good ideas, the raw material of innovation.	The individual must improve his or her cognitive ability to recognize and generate relevant new ideas.	The individual
Groups allow negative emotions to derail the process of evaluating and implementing new ideas.	The group's processes and culture must be designed to support collaboration, open communication, and risk-taking.	The group
Organizations are designed to produce routine and consistent outputs, and innovation threatens this intended function.	The organization's strategy and structure must be changed in ways that support risk-taking and the development of new initiatives.	The organization

Six Perspectives on Innovation (Continued)		
Why Does Innovation Fail?	**How Do We Fix Innovation?**	**Focus of Analysis**
Industries are oriented toward the needs of today's markets and industry incumbents, and their customers are resistant to ideas that might alter the economic status quo.	The market served by an industry must be shown the utility and value of a new idea, and this is done through the creation of new products, markets, and industries.	The industry
Society rejects or regulates new ideas that are inconsistent with prevailing norms and ethics and members' sense of identity.	The society has to be shown how new ideas are legitimate, and this is best done in terms that it already accepts.	The society
New technologies take time, expertise, and resources to develop and will be adopted only once proven effective and reliable.	New technologies are best created by significant investment in research, development, and commercialization capabilities.	The technology

What emerges from this survey of work on innovation? First, as you look down the rows of the chart, your response to each perspective might well be "Of course!" *Of course* you need good ideas, *of course* you need a supportive group, *of course* you need the right organizational structure, and so on. Beyond intuition, each of these perspectives has been developed through a long history of thoughtful observation, research, and practice by a long list of reputable academics, writers, and managers. Yet each group thinks it has found *the* key to understanding innovation. They can't possibly all be misguided or wrong. Or can they?

A General Framework for Understanding Innovation

Let's agree that each of the perspectives offers an important insight into innovation. What are we to make of all of them, taken together? To answer this question, consider the work of designers and design consultants. In my experience working as a designer on many kinds

of projects for many different clients, from laptops to luggage, from ski goggles to wine-in-a-box, I found that all designs had to meet some specific and detailed requirements. But these requirements were entirely different depending on the product, the client, the intended user, and sometimes even the design team itself. My job as designer was to tease out a deep and nuanced understanding of the particular requirements that would govern the problem I had been asked to solve. This is to say that the full set of requirements acted as a set of *constraints* on the solutions that might be possible and meaningful.

Here is an example of what I mean. A design consultancy I know well was hired in the mid-1990s to design a handheld personal digital assistant (PDA) device. Right off the bat there were clear requirements that would have to be met. Obviously, the cost of manufacturing the ultimate product would have to be less than the price customers were willing to pay for it. Success would also require that the design meet certain size requirements. While the PDA had to be large enough to accommodate the applications it was intended for, such as managing to-do lists, calendars, and a digital Rolodex of contact information, it couldn't be too large to fit in an average adult's hand. There were other requirements as well, governing such characteristics as screen size, weight, battery life, durability, and attractiveness. Another way to say this is that a successful solution—one that would be accepted by the client and welcomed by the ultimate users—had to satisfy a particular set of *constraints* if it was to be acceptable to the company that wanted to sell it and attractive to the customers who might buy it.

Using this same reasoning, look back at the chart summarizing the six perspectives on innovation. Each of these views can be seen as describing one of the general constraints that must be satisfied for an innovation effort to be successful. I can illustrate this point using the financial innovation called Keep the Change, a bank debit card program offered by Bank of America. The program works as follows: as an adopter of the innovation (that is, a member of the program), all of your debit card purchases that do not result in a round-dollar total amount are rounded up to the next whole

dollar value, and the difference is transferred from your debit card account (usually your checking account) into your savings account. Thus if you purchase a cup of coffee and charge the resulting total of $5.51, the bank will round the amount deducted from your debit card account up to $6.00. Of that $6.00, $5.51 of it will go to the coffee shop, and the $0.49 remainder will be transferred into your savings account. Depending on how many purchases you make on the card, you can end up with a nice little treasure in your savings account at the end of the year.

Relating this innovation to the table, start in the first row, the individual-centric view. The truism of this view is that for successful innovation to take place, there must first of all be an individual with a good idea. Whether individuals act alone or in groups, in effect these authors were saying that innovating successfully requires meeting the *individual innovation constraint* of being able and willing to generate and recognize a new and relevant idea. When we apply that insight to the debit card innovation, it's clear that a person was able to generate this service product idea, probably on the basis of the insight that most people aren't able to (or don't like to) deposit large amounts of money in their savings accounts, but don't mind putting aside some "pocket change" now and again.

The second row of the table reflects the assumptions that innovation always involves the participation and cooperation of other people as contributors, collaborators, or supporters, and that group dynamics can therefore be critical to the fate of the idea. This means that success depends on satisfying some specific *group innovation constraints*. The Keep the Change innovation therefore required a group, most likely the design team, to understand and refine the original idea, probably first at a brainstorm meeting and then much later at an executive-level approval presentation. You can imagine that the project might generate controversy among bankers because it involves taking a *different* amount from the customer's account than he or she signed for at the point of purchase. As you can well imagine, this kind of small technical detail could easily have been a justification for killing the proposal at this stage.

The perspective described in the third row of the table emphasizes that an organization pursuing innovation must have the strategy, structure, and resources needed to carry an idea from conception all the way through implementation. In other words, to innovate successfully, we must satisfy some set of *organizational innovation constraints*. This means that Bank of America must possess the will, skills, and resources needed to implement the concept. The bank would need the resources for actually building and debugging the service, the ability to create awareness of it, and the ability to implement it using resources in its control.

Next are the *industry innovation constraints* inherent in the perspective that sees success as possible only when an innovation, be it product, process, or service, delivers a higher level of performance to customers at a cost that is as good as or better than current offerings. There is no requirement that cost be measured in dollars or performance in any particular units. For example, for some the cost of time may be significant, while performance might be measured in the pride that ownership brings. As a constraint this requires the bank to find a market of people for whom this is a valuable service. Given that Bank of America is among the largest in the country, finding potential adopters may not have been the hard part. It would also need to ensure that rival banks didn't steal or copy the idea and offer it at a lower price. It's probably also obvious that it needs to get more returns from the program than the costs it incurs, while still remaining price competitive in the personal bank account market.

Assuming that we've met all the requirements so far, society will test our proposed innovations against its moral, ethical, and legal standards. In effect, the fifth perspective is telling us that we'll also need to meet a set of *societal innovation constraints*. In order to protect vulnerable consumers, society will require that this banking innovation meet the spirit and the letter of the banking laws, both at the state and federal levels. For their part, participants in the program need to value the "savings" aspect of the program, while also not feeling that any downside to the program was unfair, as

might occur if, for example, your account was overdrawn because more was transferred than you realized.

Finally, our sixth perspective makes the credible, if obvious, claim that to be successful, an innovation must actually exist in the world and that it must function in an intended and desirable way. In other words, a fundamental requirement of innovation is that we satisfy a particular set of *technological innovation constraints*. Here the bank must, for instance, be able to unequivocally identify members and nonmembers of the program in order to determine relevant fund transfer amounts. It must also be able to execute the funds transfers without errors and not, for example, transfer funds from an overdrawn account.

The Venn diagram in Figure 1.2 is a visual depiction of the overlapping requirements of the six constraints. Each constraint is represented by an oval with the area inside the oval representing when the condition is being met. Areas of overlap between any two or more ovals represent the conditions under which multiple

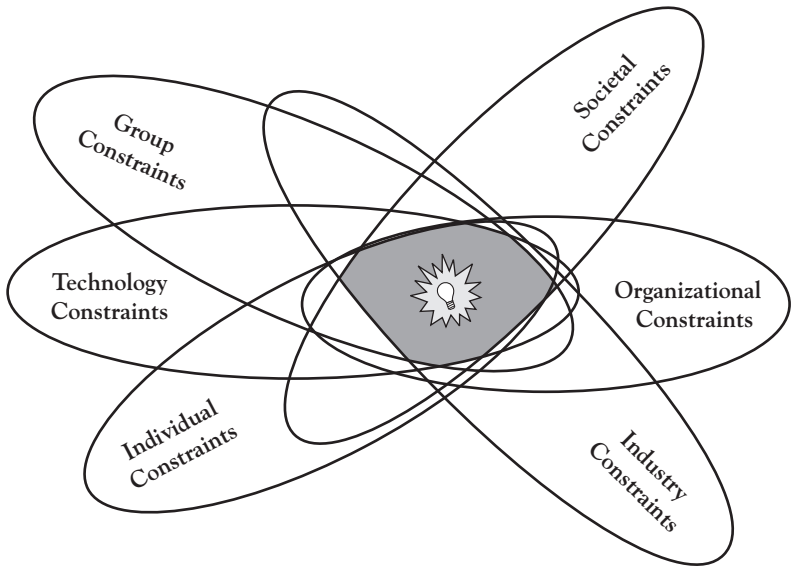

Figure 1.2

constraints are met. My proposition here is that *any* real, proposed, or even hypothetical innovation will have to satisfy all of the constraints presented by the context of that innovation. A quick trip to the Bank of America Web site proves that it was successful in meeting all six of the constraints.

Diagnosing Innovation Failures

By making the conditions of success clearer and more specific, the framework of six types of constraints can also illuminate the reasons why a particular innovation has failed. To see how, let's return to three of the brief examples I presented at the beginning of this chapter. In the case of the consumer products company with the breakthrough product that failed to move into production, *industry constraints* were apparent in the form of this organization's role within its industry as a "fast-follower" organization that waits for others to prove a market first; this made the company uncomfortable with competing on the basis of product innovation versus relying on its customary advantage of efficiency. The mention of "financial pressures" suggests that *organizational constraints* took the form of insufficient resources to fund the new project. Organizational innovation constraints are also apparent in the company's structure; it maintained its ability to manufacture its derivative products efficiently by sacrificing that part of the organization that focused on new products that were still in development and that were not currently producing revenue.

In the case of the part-time inventor, although he was able to come up with a promising idea, thus overcoming the *individual* constraints, he succumbed to *group* constraints in the form of a potential collaborator who ridiculed and dismissed his ideas. Rather than face the possibility of being embarrassed again, he decided to drop the project. It is also possible that the expert would have been vindicated if in fact the state of electronics at the time meant that *technological* constraints would have prevented the inventor from turning his idea into a viable product.

The arts organization appears to suffer from a combination of *organizational* and *societal* constraints. It has tied up immense resources in a building that has high value but comes with an even higher cost. Although the space is nice, the requirements of maintaining it create significant financial pressure on the organization. As a result, it finds itself forced to cater more than ever to the tastes and social values of potential audiences who are unwilling to pay to watch art being made when they just want to be entertained.

Identifying the "Showstopper" Constraint(s)

This framework of innovation constraints helps us understand more specifically why an attempt to innovate fails: it runs afoul of one or more of the six main types of constraints. But as you may have already started to see from the examples just discussed, in any given case the constraints are not all created equal. Instead, any given innovation is likely to satisfy several constraints (including the ones we intuitively see as important, and therefore pay attention to) but fail on one or more *critical* constraints (often ones we have failed to take into account). Identifying those showstopping constraints will further sharpen our understanding of why a particular innovation succeeds or fails.

One example of using the framework in this way concerns the early development of a product called Sow-N-Gro. The product comes in the form of a spongy black round mat about a half-inch thick and available in a variety of diameters ranging from about six to about twelve inches. This mat is made of organic materials and is intended for the inside bottom of pots that contain potted plants. According to the product packaging, the Sow-N-Gro material "retains moisture, promotes root growth, [and] releases nitrogen." The individually packaged mats were to be offered at a very economical price in the home and urban gardening enthusiast market.

At first glance, this innovative product, assuming it does what the packaging claims, would seem destined for immediate success, particularly in a segment of society that harbors increasing

concerns about synthetic chemicals and excessive fertilizer use. Unfortunately, early success was elusive. A simple pass through the constraint analysis will show why.

At the individual level, someone had come up with a promising idea and recognized it as a good one, so it seems that individual constraints were met. Inasmuch as the innovation made it all the way from the "aha!" moment to production, we have to assume that it survived group constraints and won backing from people who helped fund and develop the idea. The Sow-N-Gro organization was created to commercialize the concept, and it possessed the skills and resources necessary to manufacture the material and get it in front of the retailers and distributors who would facilitate retail sale and adoption. This suggests that organizational constraints were met. The material was abundant, and the processes for matting and packaging it were relatively inexpensive. Because it had never been used in this industry before, it had no direct competitor in the "no chemicals" home gardener market, thus satisfying the industry constraints. The fiber was easily sterilized and therefore met all health code requirements that might impede importing it into the United States, thereby meeting a key societal constraint.

Despite all this, Sow-N-Gro didn't fly off the shelves. The product exists, meets a real need, is priced right, and can't be faulted for failing to do what it promised. The problem is with the last step—adoption by the intended users. But where exactly had the innovator and the organization gone wrong?

Clues to the answer may lie in the negative reaction Sow-N-Gro elicits from people when I pass samples around in seminars and workshops. At first, when I pass the disk around the room and people look at it, sniff it, and feel it, they are mostly sold. Where can they buy some of these organic plant disks? they ask. Then I show them the product packaging. As that gets passed around, there is invariably a gasp as someone reads the statement of what the product contains. It proudly states, "Sow-N-Gro is 100% Recycled Human Hair." Suddenly the enthusiasm for the product vaporizes. The poor person holding the material at the moment involuntarily flings the mat onto the floor

in disgust. No one seems to want anything more to do with it after that (except to make jokes about one of the bald men in attendance).

These admittedly unscientific samplings of potential customers' reactions point to the showstopping constraint that the makers of Sow-N-Gro failed to anticipate. We clearly have a problem when an innovation's intended customers say "Yuck!" and fling the product to the floor when they are told what it is made of. Fundamentally, Sow-N-Gro, an economically and technologically sound product, fails at the *societal* level—at least in our culture—by clashing with the values of the people it was designed for. So oblivious to this constraint were the manufacturers of the product that they actually boasted about Sow-N-Gro's fatal flaw.

Beyond casting light on what exactly went wrong with Sow-N-Gro, this diagnosis suggests what we need to do to give the innovation a better chance of success. We need to somehow "enlarge" the societal-level constraint in a way that allows it to enter the full overlap—that is, the area where the constraints can *all* be satisfied (see Figure 1.3).

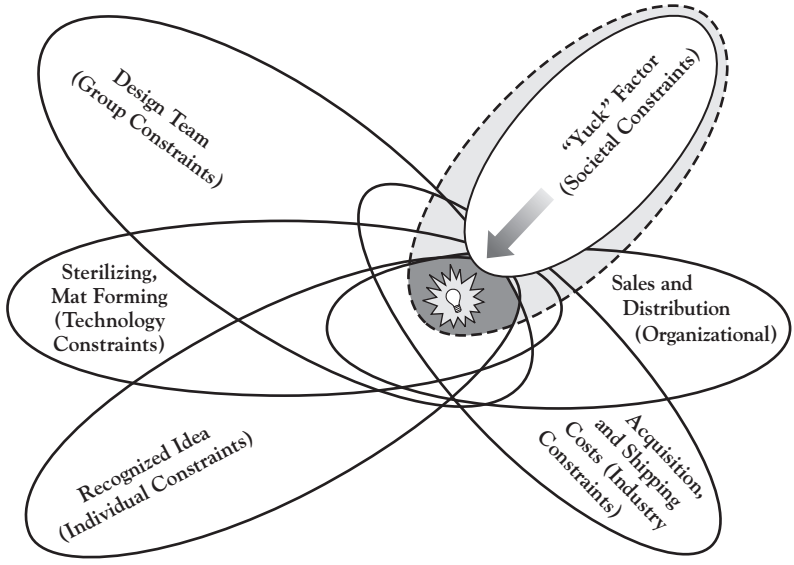

Figure 1.3

At this point I ask people how they might go about fixing the innovation problem in this way. With this little bit of coaxing, the ideas come pouring out. First, use a different material—anything but human hair. Another common piece of advice is to prevaricate about the contents: disclose the truth, but not too much of the truth. Simply call it "organic material" or "natural keratin" or, as human hair is described scientifically, "filamentous biomaterial." Clearly the company received and acted on similar advice; the latest iterations of the product describe it as "all-natural organic plant-growth supplement."

A later version of the product shows several other ways that an enlarged overlap was pursued. The name Sow-N-Gro is confusing. When heard aurally it is not clear which meaning of the sound "so" is intended: So? Sew? Sow? Changing the name to SmartGrow alleviated that confusion. The new name SmartGrow also served to enlarge the constraint by enacting a basic strategy of marketing: change the basis of comparison. The consumer is led to conclude, *Since this stuff is the smart grow, that other stuff on the shelf next to it must be "dumb grow"!* Another tactic was to change the color of the packaging. The original packaging was bright yellow, which brought to my mind the last time I had spilled a large quantity of Roundup herbicide on my lawn. Changing to a "healthy" green color makes for a much more coherent presentation to the consumer.

This example suggests that if we can identify the key constraints for a particular innovation, we can usually come up with ideas for interventions that increase the odds that our innovation will succeed. Quite often the knowledge we need is already at hand. We already know the things we need to know; we just need to remember that we know them.

With the benefit of hindsight, identifying the key constraint may seem quite simple. Yet the showstopping constraint on what came to be known as SmartGrow managed to elude the smart people who invented, manufactured, and packaged it. And their case is not at all uncommon. Why? The problem is that we tend to interpret