

*Chapter Two***The Craft of Designing Real Solutions**

If we keep doing what we have always done, so the adage goes, we will keep getting what we have always gotten. In other words, to *get* something new, we must *do* something new.

This chapter lines up a set of principles for thinking anew and acting anew, a compact description of what it takes to generate real solutions. Think of these principles as a craft, as a discipline, as a methodology. Label them in your thinking as the craft of Common Good Optimization. They are to be learned, practiced, and, in time, mastered. Great cooks are not made overnight. Great musicians bring years of practice to their performances. Great athletes invest enormous energy in honing their craft.

Common Good Optimization draws upon skills we already have, applies them in new settings, and expands their reach and impact. These are not skills that one can practice in isolation; they are team skills, more like choreography, dance, football, basketball, or the launching of a satellite. Just as it takes a whole company to stage a Broadway musical, optimization on behalf of the common good is a team effort. Once we accept its disciplines, it is a methodology that can help the American people renew outdated institutions and shape a healthy future. This chapter paints an overview of its key principles.

**We Are a Generous People**

As Americans, we know ourselves to be a nation of helpers, and this is the proper starting point for the work ahead. Here in Annapolis, Maryland, my church plays an active role in the community. Church members build houses with Habitat for Humanity. The church mobilizes volunteers to give after-school reading assistance to second graders from poverty neighborhoods. It welcomes refugees, a family from Serbia a few years ago, more recently a family from Iraq. As a PTA dad, I have seen and appreciated the enormous volunteer energy of local moms and dads. The Rotary Club I belong to collects used books and sends them to poor communities, here in America and overseas. Total books shipped to recipient libraries around the world number well over three million. The end cost to recipients, including shipping fees, averages about twenty-five cents a book. Internationally, Rotary Clubs around the world are partnering with the World Health Organization in a global campaign to wipe out polio. At one recent count, only 1,313 active cases of polio remained, and the polio vaccination campaign was focused on the last four countries where the disease still has a foothold. Locally, globally, volunteerism is an impressive force. Neighbors everywhere in the world like to step forward, get things done, make things better. Humans are creatures of great promise and great generosity, and this comes out in so many wonderful ways here in America.

**Recognize Our Basic Moral Core**

There is also a strong moral core that runs through our society. It comes down through the generations, from parents to children, in many different forms. The parental expectation is clear: I am to take moral responsibility for the consequences of my behaviors. If I see that I have done

something hurtful or wrong, I am to accept moral responsibility. I am to change my behavior.

Sometimes, of course, especially as a teenager, I might have protested. “But my friends do it.” And my parents would have said, “I don’t care what your friends *say*. What matters to us is what you *do*. If you do something that causes harm, you have to change your behavior.”

Did we hear that from our parents when we were teens? Most of us did. Have we said that, or will we say that, to our own teens? Almost surely we will.

When a strong moral code is widely accepted and internalized, it becomes a source of cohesion and strength. In some parts of rural America it works so well neighbors never lock their doors.

What puzzles us, as citizens, is the glass ceiling in civic life that limits the reach of common moral decency. Below the glass ceiling, Americans practice generosity and moral responsibility as a matter of course. Above the glass ceiling, in the larger realms of business and government, basic moral principles seem to fade away. They lose their hold as a living presence in how we do business. Special interests quarrel with special interests, quarreling just as we did as teenagers. Often we join in. After all, our friends say that it’s okay.

This puzzles us. We know ourselves to be a morally responsible people, yet somehow we Americans have a difficult time taking moral responsibility to scale. Society is so complex that the visual link between actions and consequences never forms. If I cannot physically see a direct connection between organizational behaviors and societal consequences, how am I to take moral responsibility? And what behaviors am I to change? It is a puzzlement. No wonder one senses a glass ceiling. We Americans have never learned the craft of translating basic moral principles to a larger societal stage.

And therein lies our opportunity.

### **Engines of Replication and the Importance of Scaling Up**

Going to scale with basic moral principles may seem impossible, given the size and complexity of modern society, but it is precisely the vast size and power of the modern world that makes it essential.

Modern society testifies to the power of human ingenuity. Humans have been toolmakers for thousands of years, but not until relatively recently have we also invented tools for the making of tools. And now we have far surpassed that jumping off point. We have invented engines and magnified the power of human muscle; we have invented skyscrapers and magnified the reach of the human skeleton. We have invented sensors and extended the reach of the human ear and the human eye. We have invented computers and magnified the power of the human brain. We have invented communications and magnified the reach and power of human conversation. What we cannot invent is a machine that keeps us from behaving foolishly. As ever, those qualities must be cultivated from within.

Take it all together. The central feature of modern society is its limitless power of replication. Whatever the mass market will buy, mass producers can create. Mass production begins with the creation of a template, a master mold. And then one turns on the engines of replication. Copies are produced, by the thousands, the millions, even the billions. For better and for worse, modern society’s engines of replication are capable of blanketing the world.

Adam Smith was once enthralled by the craft of mass production in a simple pin factory. Eli Whitney used the arts of standardization and mass production to multiply the production of cotton gins. Henry Ford married standardized parts to the assembly line and took another long step forward. Now we have digital technologies that can make limitless copies of digital files for a

marginal cost per copy that is essentially zero.

Template replication as a core feature of modern life extends far beyond the manufacturing realm. Land development practices are shaped by the same dynamic. Template replication has been a constant feature of American suburbanization for the past six decades. The strip mall and subdivision template has been replicated endlessly, in suburb after suburb, for the past sixty years.

New businesses are organized by a similar process. Templates abound for managing inventory, organizing production, marketing products, doing the bookkeeping. When citizens in a growing community decide to incorporate themselves as a new city, they turn to a host of templates for designing their new municipality. New social clubs organize themselves by drawing on templates created elsewhere.

As we know, template replication can be a source of strength and ease and wealth. Rural America is electrified thanks to the power of template replication. Electric utility business frameworks were copied, and copied again, and in time all American communities had electricity. Templates for water and sewer systems produced significant improvements in public health. Templates for replicating wonder drugs vastly extend the reach of their life-saving potential.

Yet template replication is not always beneficial. Suburbanization templates have imposed a major cost on the nation. Too much gridlock, too little time at home with family. Fossil fuel energy templates are global in scope and now endanger the global climate. Templates for subprime mortgages and bundled mortgage investment instruments spread like wildfire for a decade, then brought the world economy to its knees. These vast errors call to mind the Sorcerer's Apprentice story, from *Fantasia*, reincarnated as an ever-present danger of modern life.

Vast powers of template replication are the essence of modern society. They give humanity a capacity for doing great good; they also give humanity the means to cause extraordinary damage, often at great speed, and sometimes with irreversible consequences. They pose a challenge to constitutional theory and democratic government that we have yet to recognize and adapt to.

No matter how powerful these replication engines may be, basic middle class principles still apply. Even a whole civilization is responsible for the consequences of its behaviors. The rules remain simple. *See the consequences. Accept moral responsibility. Adjust behavior.* The more sweeping the consequences, the more urgent the need to "scale up" basic morality.

### **Matching Our Methods to our Challenges**

Two forces are inescapable. Institutional inertia is always a fact of life, both in business and in politics. Modern society's engines of replication are an equally powerful fact of life. Combine the two, institutional inertia and the potency of modern technology, and regular citizens soon find themselves caught in a sea of chronic problems. Part of the problem lies in corporate America, part of the problem lies in the way government does business. Part of the problem lies in the misplaced priorities of Republicans, another part lies in the flawed priorities of Democrats.

Given the situation we find ourselves in, given the diagnosis, the proper cure is optimization.

Optimization is a redesign answer. It isn't enough for industry to optimize its desire for commercial success to the exclusion of all other purposes; one must also optimize on protecting and preserving the common good. It isn't enough for government to regulate piecemeal; government and industry must work together to find solutions that promote industry and protect the common good at the same time.

Optimization, though, begins as an exercise in Reason, not as an exercise in Power.

Power we understand. One candidate wins, another loses. Some bills pass, others are killed.

Some supplicants receive the appropriations they request, others do not. Some alpha males rise to the top, others are pushed to the side. Power is an inertial force. Power underprotects the future and overprotects the past. It isn't always pretty, but we are familiar with its ways.

Reason is less familiar, but not unknown.

In engineering, the language of optimization is the language of reason. Engineers in corporate America are given capital budgets to spend. The better the technology they buy, the more successful their company. But technology purchases are not simple. Several goals must be met at the same time, and those goals are not always in full harmony. Engineers over time have developed a number of disciplines for grading different options and finding their way to an optimized answer. Engineers know from experience that optimization is reason in action.

Reasoned optimization lies at the heart of what architects and clients do. The client owns a piece of property and has a number of objectives he would like to accomplish. Using both her analytic skills and her creative skills, the architect presents a design solution. The client studies the proposed design, agrees with some aspects, disagrees with others, and makes a series of suggestions. The architect returns to the drawing board. A second round of design follows, then perhaps a third, maybe a fourth, and so on. In most cases, the client and the architect converge on a design that best optimizes the client's performance goals.

In more complex situations, skilled facilitators also play a vital role. My wife once worked for a firm that specialized in Wicked Problem Facilitation<sup>1</sup>; as a husband I received many a debriefing. Interoperability – the often missing ability of first responders to communicate effectively in crisis situations like 9/11 – is a wicked problem par excellence, with dozens or even hundreds of stakeholders and no single authority empowered to dictate a solution. Fire departments, police departments, emergency medical teams – typically these units are set up locally rather than regionally or statewide. From unit to unit and specialty to specialty, these brave individuals have differing work practices, differing protocols, differing views on turf and authority. For interoperability to function properly, much the opposite is required: shared views on turf, shared views on communication protocols, and shared views on how all these different specialties are to work as a single team in in crisis situations. The Department of Homeland Security was charged with overcoming the lack of interoperability, state by state, region by region, and on several occasions engaged Touchstone's services.

The good news is that large and diverse groups can sort their way through the clash of cultures and divergence of perspectives and emerge on the other side of the knothole with workable solutions. It doesn't happen automatically; but with the guidance of skilled facilitators, and the prodding of high level sponsors, wicked problems can and do get solved.

In the world of Power, wicked problems almost never get solved. In the world of Reason, solutions can in time be put together.

*Optimization Work Projects.* Let your imagination look forward. Common good optimization begins, in essence, as a work project. I won't try to describe the particulars, because no two projects will be the same, but most such projects will share a common set of guiding principles.

Every project will have an institutional focus of some kind. Think public schools. Think energy. Think welfare. Think labor market policy. Think urban land use and urban transportation. Think housing and zoning. Think commercial banking. Think investment banking. Many key sectors, public as well as private, have operating practices that intensify this

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<sup>1</sup> Touchstone Consulting, in Washington, D.C.; later SRA-Touchstone.

nation's chronic problems. Any critical sector whose replication engines undermine America's well-being is a candidate for reexamination and reinvention.

Each project will have an optimization mission. Redesign the business model and related public policies so that the sector not only meets its central business goals, it also protects the common good.

Each project will have its own set of convening sponsors, high profile individuals that are widely respected.

Each project will be staffed with a project team of some kind, a vibrant cross-section of facilitators and analysts and creatives<sup>2</sup> and others of talent.

Each project will gather its own "Interested Public," several concentric circles of knowledgeable volunteers to follow the deliberations and offer critical feedback.

Each project will drive toward an output goal, one or more Solution Scenarios that describe superior new business models, ways of meeting business goals while also protecting the common good.

*Procedural Guideline: No Prior Vetoes.* One procedural guideline in particular is essential to the success of this kind of work - No Prior Vetoes. Prior vetoes are a common feature in negotiations based on power. Before discussion even begins, key power brokers lay down their markers. By the time they finish, very little room is left for genuine discussion and negotiation. Exactly the opposite approach is essential in a process based on Reason. All options deserve consideration, even those that will eventually be ruled out as ineffective or harmful.

In an energy negotiation, environmental groups will strive to veto all discussions of nuclear energy. In a medical industry negotiation, major players will veto "socialized medicine," whatever that might mean. In an education discussion, teacher unions will try to veto any consideration of charter schools. In a Social Security discussion, liberals will insist on taking personal accounts off the table.

Such behaviors are entirely predictable in a Power negotiation, but wholly contrary to the needs of a work project charged with finding real solutions. One cannot find superb answers to difficult issues without employing an abundance of curiosity and imagination, and it will be a grave error to put human curiosity in a straitjacket before a project even launches.

*Procedural Guideline: Stay Non-Partisan.* An optimization project team should not think of itself as being in the job of strengthening either party's political agenda. Democrats and Republicans have their own think tanks for doing that sort of work. The project team should see itself as being scrupulously non-partisan, open to ideas and concerns from all points on the political spectrum, bound by principle to furthering both commercial success and the common good, and bound as well to a standard of listening respectfully to the widest possible range of solution approaches.

In honoring this principle, it is useful to draw distinctions between Governance, Politics, and Government. *Government* is what civil servants do in carrying out the laws. *Politics* is what politicians and partisan citizens do in campaigning for office, winning elections, and debating legislation. *Governance* is what ordinary citizens do in talking over the direction our country is taking. In this usage, Governance is upstream democracy, Politics is midstream democracy, and Government is downstream democracy.

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<sup>2</sup> In advertising agency parlance, individuals of great originality and imagination are respected as "creatives." The same is true of great architects; they, too, are among society's creatives. Creatives can also be analysts, but not all analysts are capable of being creatives.

A project team, in this usage, is part of the work of upstream democracy, part of the Governance work of ordinary citizens. It is charged with being a source of ideas that can be put to work by partisans of both parties, as well as by those who see their roles in non-partisan terms; it is not charged with being a stalking horse for either party.

Common good optimization is a form of spring cleaning. It cannot be done well by in the midst of partisan combat; it requires space, active listening, broad-minded curiosity, a spirit of reflection, a spirit of invention.

### **Understand Society as a Mixture of Sectors & Assets**

After I had finished my first draft of this book, I realized I had created two types of chapters. Some chapters discussed assets that needed protection, while others discussed sectors that required reform. Without intending it, I had suggested that we see American society as a matrix. It was a promising insight, and each later draft has built further on that discovery.

*Society and its Core Assets.* Let's start with society's Core Assets. Every society has them. Environmental Capital. Human Capital. Economic Capital. Civic Capital.

These assets are a form of inventory. If I have started a business, I will need small bits of inventory from each of these stores of capital. I will need environmental capital – fresh air, clean water, a healthy climate, good food. I will need human capital, individuals who can serve as investors, partners, employees, contractors. I will need economic capital, in the form of savings and investments, in the form of bank credit, in the form of customers who have the means to buy what I'm selling. And I will need more than a dash of civic capital – infrastructure in the form of highways and ports and a postal service, infrastructure in the form of contract laws and courts and jurisprudence that will protect my commercial rights, and so on.

The healthier society's core assets, the better for me as a business person. I have more to work with, more opportunity to expand and succeed if customers are attracted to my company.

It isn't enough, though, to understand this intuitively. There's too much at stake, too many engines of replication whose operating principles sometimes undermine our well-being. America is a \$14 trillion a year enterprise just now. It is time that America's citizens had a set of Balance Sheets that can tell us of the well-being of this society's core assets. Small businesses have Balance Sheets. It is an obligation they have to their directors. To give executive guidance, business leaders need to know if assets have grown stronger or weaker over the course of the year. The same is true for America's assets, and America's citizens. America's citizens need to know whether this society's core assets are improving or deteriorating.

Future chapters will describe broad approaches for designing each set of Balance Sheets – Environmental Capital Balance Sheets, Human Capital Balance Sheets, Economic Capital Balance Sheets, and Civic Capital Balance Sheets.

Building balance sheets for each set of core assets is the first key step on the road to scaling up the basic moral goodness of the American people. Recall the basic principles: See consequences, accept responsibility, adjust behavior. We create Core Asset Balance Sheets so that we can, at last, "see consequences" properly, at a societal scale.

*Society and its Multiple Sectors.* I use the term "Sectors" in this book because I want to embrace many types of institutions – industries, markets, government agencies, legislative policies, political parties, demographic groupings, and so on. What all sectors have in common is a capacity for creating engines of replication, often ones with great power and far-reaching impact. When those engines of replication are responsibly designed, society's core assets will benefit. But whenever those

same vast engines of replication go off the reservation, society’s core assets can suffer great damage.

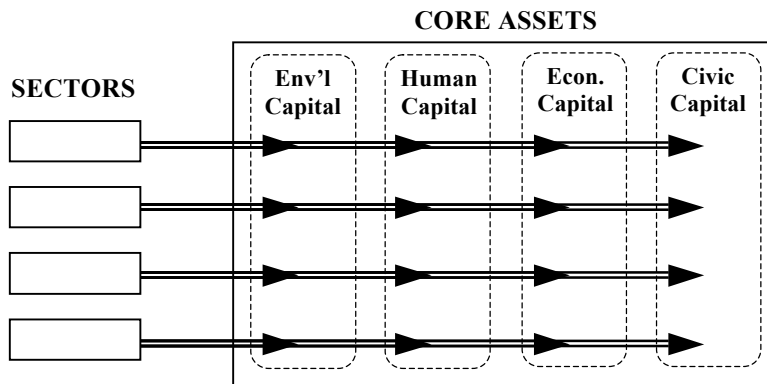
Suppose, again, that I have launched a small business. In a small way, even I can have an impact on the well-being of society’s core assets. If I am a polluter, environmental capital suffers. If I am unscrupulous in how I treat and compensate my employees, human capital suffers. If I borrow money and then go bankrupt, economic capital suffers. If I contribute lavishly to particular candidates in hopes of winning legislative and regulatory favor, civic capital suffers. Multiply my behaviors by the thousands, or tens of thousands, or millions, if other businesses operate as I do, and the consequences can be harmful across a vast swath of society’s core assets.

As a business leader, I have economic responsibilities and I also have moral responsibilities. What shall we say about me if my behaviors in business tend to undermine the well-being of society’s core assets? Do we say that I ignore Consequences? Do I refuse to accept moral responsibility? Am I also refusing to adjust my business behaviors?

And, as a side note, do I also plead that my friends behave exactly as I do?

This book focuses also on many of our society’s major sectors. Each sector, taken as a whole, functions as a vast engine of replication. Sector by sector, this book asks the scaling up questions. Are the consequences beneficial or harmful? Have sector leaders accepted moral responsibility? Have our legislative leaders also accepted moral responsibility for the policy guidelines that shape sector behavior? If sector behavior is causing damage, why? How could the sector be redesigned so that its replication behaviors will be beneficial rather than damaging?

In the cross-hatch of Sectors and Core Assets we are given the essential elements for scaling up the basic moral decency of the American people. The glass ceiling isn’t forever; chronic problems can indeed be replaced with real solutions.



**Formalize the Common Good**

With a Sectors and Assets understanding of society in hand, it is now possible to formalize the concept of the common good. As a sentiment, the phrase “common good” has been with us a long time, along with similar phrases such as the “general interest” and even, from the Preamble to the U.S. Constitution, the “general welfare.”

Now we can give this phrase a more formal definition. We do so by understanding the common good in the context of society’s Core Assets.

If America’s Core Asset Balance Sheets paint a picture of health and progress, one is justified in saying that America is moving toward the common good.

If, however, America’s Core Asset Balance Sheets paint a picture of weakness and decline, across a number of fronts, then one is justified in saying that America is moving away from the

common good.

The common good is a directional concept. It isn't a destination, per se. Core assets can always be healthier and stronger than they are now, but if the direction of progress is positive, then society is entitled to be pleased with its success in advancing the common good.

Whichever way society finds itself heading, toward the common good or away from the common good, its key sectors will be the driving force. Properly optimized, they will protect the common good. Carelessly designed, their impact on the common good will often be negative.

**The Optimization Challenge**

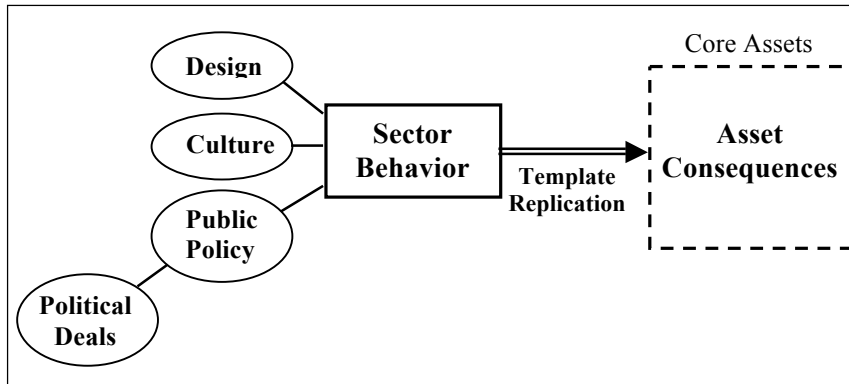
Now to the next step. Balance sheet numbers paint a story of decline, in an important area, and Sector X appears to be the culprit. An Optimization Project Team has been convened. The common good is being compromised, and the project team has been asked to fashion a rescue plan. How will the team proceed?

As its first step, it will do something of an audit. Does the trail of cause-and-effect relationships truly lead back to Sector X, as everyone thinks? It might not. After some investigation, the project team might decide that the trail of evidence leads back to Sector Y, not to Sector X, and in that event it would pay no further attention to Sector X.

Let us assume, though, that agreement is reached. The responsible Sector has been identified, and everyone agrees that it is a source of continuing harm. There is much to explore, analyze, and, over time, re-imagine and reinvent.

Conceptually the work will look something like this.

**Common Good Optimization Framework**



Read this diagram from left to right.

- Political Deals shape Public Policy.
- Design, Culture, and Public Policy shape Sector Behavior.
- Sector Behavior expresses itself through Template Replication.
- And Template Replication affects Core Assets either positively or negatively; those effects are called Asset Consequences.

The heart of the work lies in three parallel areas – Design, Culture, and Public Policy. These are the forces that shape Sector Behavior, that shape its replication templates, and that ultimately affect the ways in which it can undermine the well-being of society's core assets.

*Design* is the first diagnostic challenge. The team must understand the design principles that

have shaped sector conduct, including business models, technology models, and, finally, its replication templates. In what ways have past design decisions been beneficial to society's core assets, in what ways have they been harmful? This is the diagnostic phase.

Diagnosis then flows into prescription. This will never be easy. One cannot imitate the family doctor by saying "take two aspirin and call me in the morning." The appropriate Fix-It Manual doesn't exist. The Optimization Team will have to write its own. The team's most creative members will be asked to step forward and put their imagination on display. The stronger the team's creative energy, the more power its Solution Scenario will have.

This is not something the team will do in isolation. Most often there will be charrette after charrette, one public dialogue after another, as the team interacts with its wider circles of participant-observers.

*Culture* is the second diagnostic challenge. Some members of the team will have been chosen for their keen appreciation of organization culture, industry culture, and public culture. Their work will parallel the analytic work of those investigating design issues, but their approach and focus will be geared toward a softer kind of learning. They will want to know if the culture of Sector X encourages CEOs, managers, and line employees to feel a sense of responsibility for the social and environmental consequences of their work. They will want to know if there is a culture of "thinking long" – of caring deeply about sustainable business practices over time. What is the character of sector culture and how does it affect the actions of those who have their hands on its engines of replication?

Culture doesn't get prescribed. It doesn't get redesigned. Culture gets negotiated. Relationships get built. Points of view are invited and listened to. New ideas are offered and tested. In the work of searching for a higher order business model, one that makes money and also protects the common good, new cultural standards may well emerge.

*Public Policy* is the third area of interest, along with the *Political Deals* from which public policy invariably emerges. Textbooks will suggest that public policy has much the same function as a baseball rules committee. Just as baseball rules are set for the purpose of defining the foul lines, the framework of the game, and the acceptable limits of player conduct, public policy toward a particular industry is intended to define the competitive framework within which member companies can legitimately compete for commercial advantage. Wise rules are good for baseball; wise public policies are good for industry.

But it doesn't always work that way. Sometimes public policy levels the playing field; sometimes it tilts the playing field. Imagine a baseball league in which home teams were given four outs per inning but visitors only three, in which the pitcher's mound for visitors was ten feet further back, in which the centerfield fence was much further back for the visitors. Baseball would never do that, but public policy sometime does.

An optimization team must understand the public policy framework for the industrial sector that it has taken on. How have the laws been written and the incentives structured? To what extent does present industry behavior reflect the underlying intentions of current public policy?

Reform conversations in America often begin and end with public policy as their focus. Reformers assume that new law is enough. Write a good law, appoint good regulators, then let business adapt.

I hope I am not read as agreeing with that approach. Optimization is a subtle process.

Finding the most sensible business model ought to come first, because only then can public policy be tailored to achieve maximum benefit with minimum intrusiveness. Even in an Optimization Project, which has only the power of suggestion not of legislation, recommendations on the most optimal business model ought to precede recommendations on the most optimal policy framework.

### **The Promise of High Standards**

I have lived through the kind of reinvention change I describe above. I once worked for Cummins Engine, the diesel engine manufacturer, at its machining and assembly plant just outside Jamestown, New York. Like all of America's manufacturers, Cummins had long been in the grip of old traditions and yesterday's templates – Corrective Quality, Just In Case Inventory. It had been a culture of rules wrapped inside rules wrapped inside rules. The product was good, its market reputation was strong, but the manufacturing process was convoluted and costs were high.

All that began to change in 1983 and 1984, just as I had the good fortune to be employed there. Cummins had listened to the marketplace and heard a harsh message. If Cummins was to survive and thrive in the midst of tough global competition, it would have to reinvent itself. Hello to Preventive Quality, good-bye to Corrective Quality. The era of Just In Case Inventory had to end. Just In Time Manufacturing was the wave of the future. I played a small part in initiating the shift at Jamestown; the small Just In Time Manufacturing project I led kicked off its work by videotaping every operation on the assembly line and then sitting down with team members from the line to brainstorm how best to reorganize each work station.

The assembly line at the Jamestown Engine Plant had been flanked by rows and rows of material storage racks. Even though the line produced only fifty engines a day, these racks were stuffed to the gills. As I recall, we had a Twenty Days' Supply.

In 2007, two decades later, I revisited the plant. The material storage racks were entirely gone. Just In Time delivery was a reality. A shipment of parts would sit on the factory floor for only a few hours before being installed on engines. And daily volumes were more than nine times higher than they had been in 1985. A transformation which we could only barely imagine in 1985 had turned Cummins into a far more powerful – and quite successful – manufacturing company.

Think of this as a *paradigm shift*. It is an important concept, sometimes overused, but still essential. An old manufacturing culture had given way, a new manufacturing culture had been brought into being, not just at Cummins, but at many other firms that also embraced the same new philosophy of manufacturing.

And that is what I am sketching here, on these pages - a paradigm shift in how we as Americans think our potential as a nation. Quality failures weren't really inevitable in manufacturing, though the old paradigm said they were. Endless racks for material storage weren't really inevitable either. And chronic problems are not inevitable in the daily life of American society, even if old paradigms claim otherwise. What we once thought of as "truth" at Cummins turned out to be nothing more than a self-fulfilling prophecy. If one expects failure, one gets failure. But why lower oneself to an expectation of endless failure? Through the disciplines of preventive quality, Cummins teaches us, much higher levels of success are possible. And so I argue here. Through the disciplines of common good optimization, applied across the broad canvas of American society, much higher levels of success are possible.

## Four Turnaround Seminars

This is a book for those who are ready to consider paradigm shift thinking. No matter how flawed some of our markets, industries, laws, and institutions may be, most are one good paradigm shift away from being pointed in the right direction. Institutional inertia damages the common good, day after day, year after year, only because we allow it to happen. Where is the dignity, though, in always being enablers of chronic failure? If we set higher performance standards, if we learn the disciplines of common good optimization, we can be the generation that launches a common good turnaround. In the next four sections I examine this promise in more detail.

*The first Turnaround Seminar examines Environmental Capital.* Its opening chapter sketches a process for developing Environmental Capital Balance Sheets. The next chapter examines optimization from the perspective of lasting sustainability, and it finds us losing ground because our notions of sustainability have no rigor behind them. Sloppy design principles and inadequate public policy conspire to undermine as much as strengthen. Three more chapters put the fossil fuel energy sector under the microscope. No one can prove that this industry is a safe bet for anyone's future, but our standards of rigor are so low that we muddle along forever with ill-conceived remedies. The paradigm shift we require in energy is both personal – it will affect all of us as energy consumers – and global. Its short-run costs may be a bit higher; its long run costs are far lower. There is great promise in a new energy future, and far less risk.

*The second Turnaround Seminar looks at Human Capital with a special emphasis on Urban Turnaround.* The opening chapter in this section tees up the work of designing a Human Capital Balance Sheet. I follow with a brief excursion that rethinks what it is we can learn at the intersection of science and religion, and then turn to urban America. Urban America poses a formidable challenge; as mentioned earlier, an entire failure spiral holds us in its grip. Interested in the concept of “negative synergy”? Take a hard look at urban America. If reformers focus only on piecemeal repair, our cities will never heal. For the habits of the past to be overcome, half a dozen key sectors must be simultaneously engaged in reinvention and optimization. Negative synergy can be dispelled only by countervailing injections of positive synergy. Reinventing urban life so that positive synergy takes over from negative synergy is the central theme of the second turnaround seminar.

*The third turnaround seminar examines the habits by which the American economy operates.* As before, I begin with a core asset. I propose a design framework for creating an Economic Capital Balance Sheet. Then I turn to a critique of the design principles and the cultural preconceptions that lie behind current economic policy and current economic misbehavior. We are not well-served by the clichés of free market radicalism. The American economy of today starves the middle class and accelerates the enrichment of the supremely prosperous. Its financial markets become engines of disequilibrium and bring the world to the brink of Depression. Very little in today's belief system helps us shape an American economy that simultaneously walks and chews gum, that protects the common good and prospers at the same time. It is time to rethink, reassess, reinvent, and renew.

*In the fourth turnaround seminar, I discuss the topic of Civic Capital.* This section begins with a chapter that describes one possible framework for a Civic Capital Balance Sheet. Then it looks at a series of potential improvements. Below the glass ceiling, we have abundant volunteerism and a

wealth of civic capital; above the glass ceiling, we have little sense of how moral responsibility can be properly taken to scale. Though our nation possesses an extensive infrastructure built for advocacy and partisan combat, the infrastructure built to explore the common good is sparse indeed. American culture is long on yesterday's ideas and short on tomorrow's. Change this, build an infrastructure that brings alive the promise of renewal and optimization, and American civic capital will become much stronger.