Ihe Intergalactic Design Guide Harnessing the Creative Potential of Social Design Cheryl Heller

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FOR GARY

As *Homo sapiens's* entry in any intergalactic design competition, industrial civilization would be tossed out at the qualifying round. It doesn't fit. It won't last. The scale is wrong. And even its apologists admit that it is not very pretty. The design failures of industrially/technologically driven societies are manifest in the loss of diversity of all kinds, destabilization of the earth's biogeochemical cycles, pollution, soil erosion, ugliness, poverty, injustice, social decay, and economic instability.

> DAVID ORR, Earth in Mind

Mrs. Cavendish wanted it all to mean something in a world crazed and splattered with the gook of apparent significance, and meaning had an affinity for being elsewhere.

> STEPHEN DUNN, "Mrs. Cavendish and the Dancer"

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Preface

THIS BOOK IS THE SYNTHESIS OF MANY YEARS OF PRACTICE, observation, and explanation. I have been a practicing designer during the profession's most dramatic changes, from the introduction of the technologies that changed its very nature through designers' awakening to the power they have to create social good as well as empty consumption. My clients have included leading multinational corporations in almost every industry, entrepreneurs of all kinds, foundations, nonprofits, and global nongovernmental organizations working to save the planet and end human inequity. I have made the journey from a lone "creative," whose job was to produce exciting new ideas on demand, to an agent of change who facilitates others in developing ideas for themselves. I have learned from—and, I hope, provided value to—each of them.

Over all these contexts and experiences, I have observed what works in the short term and over time. I have studied how successful people succeed, how the disruptors disrupt, and what, across gulfs of culture, size, and vision, they have in common. From Paul Polak, with his astounding work to create new economies that end poverty, to Erik Hersman, whose serial technological innovations have touched, and connected, many millions of people, to the organizers of the 1975 women's strike in Iceland, who won gender equality for their country, the methods for designing change are essentially the same.

Explanation is making sense of what's been learned and observed. It is inviting everyone in and making this new way of approaching change accessible. Explanation is both the hardest and the most interesting part. For me, it has included developing

and chairing the first master of fine arts program in social design, a nine-year process (so far) of translating the practice of social design into experiential learning that sends graduates out into the world to lead their own change for good. And, of course, it includes the transformational two-and-a-half-year process of writing this book.

Three things urgently need to be explained. First, social design is the best method we have to create a viable future for our civilization because it transforms us as it changes the things around us. There are examples of its effectiveness in action everywhere; there is no need to delay getting started. Second, while brilliant innovators do it instinctively, each gravitating to common principles and processes, social design is something that, with practice and dedication, everyone who wants to can learn. And, finally, we need to learn it now. As the Chinese proverb advises, if we don't change our direction, we're likely to end up where we're going.

It is my humble hope that this book will inspire more leaders, like the ones included here, to find the social designer in themselves. And that it will inspire confidence in those already doing so, by confirming for them that they're on the right path. What we urgently need is for new generations of leaders to step forward and put these principles for mutuality and resilience into practice. Please, do. And thank you.

-Cheryl Heller

CHAPTER 1

The Answer to Everything

A BICYCLE SALESMAN ON TENTH AVENUE AND FIFTY-EIGHTH STREET in Manhattan offers practical wisdom to customers who walk into the store to buy their first serious bike. His body speaks with road-tested authority before he does, with quadriceps the size of footballs and calves that look as if they were blown up with a bicycle pump. Tutorials include demos on changing flats, adjusting seats, working gears on tricky hills, and getting out of toe clips in time to avoid toppling sideways toward the pavement, bike in hand.

"I'll give you one more piece of advice," he says. "You're going to be inclined to stare at the pothole or the curb or open cab door when you're out on the streets, thinking that's the best way not to hit it. Don't. Look at the space beside it, no matter how narrow. Because what you look at is where you'll go."

Somewhat more eloquently, the philosopher William Irwin Thompson said that, like fly-fishers, "we cast images in front of ourselves and then slowly reel ourselves into them, turning them into reality." The point is pretty much the same whether you're riding a bike, catching a fish, or trying to imagine a future for humankind.

But it's the concreteness of the bike salesman's wisdom that makes it brilliant, the specificity of it that connects our pothole-level reality with the loftiest universal ideals.

Instead of staring into the dismal picture put out by twenty-four-hour-a-day media and entertainment, trapping ourselves in an endless inventory of what's wrong, can we picture the reality we want to see? That vision would be of a civilization with its best years still in the future: a world in which everyone who wants useful work has it and more than a handful of people have money and power, a world where industries aren't fighting over the remnants of extracted resources and we don't poison ourselves with toxic chemicals. Where we live in a state of mutuality with each other and with nature, not a frenzied destruction of her. Where the reasons to trust outweigh the need to protect.

This is not Oz I'm describing, or a naive vision of utopia, or blindness to the difficulties inherent in maintaining a species as ubiquitous, acquisitive, self-centered, and frequently violent as our own, but a vision that accepts our inherent character and channels its collective creativity in mostly benign, productive ways.

It's a civilization that would have a shot at first prize in any intergalactic design competition.

Unlike the traditional design processes that have formed so much of our modern society, social design is a methodology for changing the human condition. Not changing the world, as so many like to say, because the world itself is not in need of change. Social design is a system, first and foremost, for designing fundamental changes in ourselves: a shift in who we think we are, how we perceive and treat each other, what we believe is possible and can work together to create. It instills a belief in human agency and creativity and builds the capacity for communities to reimagine new stories and new realities for themselves.

"Social design" is a term that entered the lexicon around 2006. The name can be interpreted literally as the design (or redesign) of societies, at either ultralocal or large scales. It incorporates both the physical and the intangible, the human relationships that create communities and form societies.

Within the army of people already working to address social issues of poverty, equity, and their kin, the question inevitably arises (with varying degrees of suspicion) as to how social design is different from what they already do, and exactly what, at a pothole-specific level, it is.

Design has always been in service to what's next and, sometimes, to what is really needed. Social design is, in one way, simply design's evolutionary trajectory in relation to the effects of technology. Yet it is revolutionary. Almost nothing about it is new except its organization into a system and its application to human relationships instead of only artifacts. Yet that has never been done before. It's a particular combination of activities performed in a certain order, informed by a set of principles, and mastered through a combination of hard and soft skills. Yet it turns the established ways of working upside down.

There is nothing magical about it, although some like to make it seem that way. All those willing to invest themselves fully can learn to do it, and while much of it seems like logic too simple to merit study, significant rigor, discipline, and time are required to do it well. It doesn't guarantee success, but it does increase the odds of making things work for more people instead of only a few. Most of all, it changes anyone who practices it: social design puts us in touch with our own creativity, resourcefulness, and purpose.

Unlike designing with physical resources, social design is often intangible, disappearing into the evidence it produces—the polar opposite of making a fancy new car or phone, where there's a solid artifact for all to judge or admire. Yet the invisible forces that are the materials of social design control the way we think, the things we make, the way we act, and whether or not we'll succeed in finding a viable way to live and work together.

Nearly a quarter century ago, David Orr wrote *Earth in Mind*¹ and called us out on the shoddy design of our industrial civilization. It's an understatement to say that for now, the situation has not improved. Not for lack of awareness, though, since the evidence is everywhere.

The drinking water in Flint, Michigan, poisons the city's residents. The air quality in Beijing poisons citizens there. Five hundred children under the age of five die every day in India from issues of contaminated water and poor sanitation. Babies are born with opioid addiction, costing billions of dollars in health care. Two out of three adults in the United States are either grossly overweight or obese, and the richest 1 percent are wealthier than the "bottom" 90 percent combined. Terrorists drive onto sidewalks in an effort to kill pedestrians. The Amazon jungle is being destroyed at the rate of one and one-half acres per second, and half of all the 22-million-year-old coral reefs on the planet have died in the past 30 years because of climate change. Without radical modification, our current trajectory leads only to disaster—death by the fallout from climate change, epidemic, or nuclear war, each resulting in one way or another from the unsustainable civilization we have built.

We do not suffer, though, from a scarcity of ideas for how to remedy our plight. In *Blessed Unrest*, Paul Hawken called the widespread awakening of social and environmental activism the "greatest movement on earth."² It includes small grassroots efforts everywhere and massive global programs and technologies with the power and scale to transform life as we know it. Inventors have developed renewable sources of energy,

and entrepreneurs grow materials from mushrooms that replace those made from plastic.³ Financial inclusion services have been developed that make it possible for people without money to join the global economy. Dozens of designs for cookstoves don't suffocate the people who use them; fishing nets exist that do not trap and kill hundreds of thousands of loggerhead and leatherback sea turtles and seabirds every year. People everywhere are either working to raise awareness about the things that need addressing or fixing current problems and developing new technologies to circumvent them. The list is endless, and tallying it would be akin to trying to count the number of restaurants in New York City while new ones close and open every day.

This book offers a practitioner's perspective on social design, not a technical, academic, or theoretical one. There are books on design research methods, history, heroes, and contributions. There are beautiful books on the craft of design, its materials and aesthetics. Here, no attempt has been made to include everything there is to know, only enough—and, I hope, plenty—for everyone who wants to practice social design to understand how and where it works. And to see that the only place to begin is where they are.

The examples included are about practitioners, people who learn from doing and act their way to change. They set out, driven by an audacious purpose, but often with no advance plan for how to accomplish it. They make decisions based on evidence, navigating in uncertainty, moving forward one step at a time. Yet they accomplish the improbable, upending accepted notions of "how things are done." Who would expect, for example, that a global business could be built by selling to people who make less than two dollars per day? Or that a grassroots movement could use text messages to curtail violence among people who were fired up to fight? Or that scientists and hotel companies could collaborate to save coral reefs? These are some of the challenges that social designers are taking on.

The social designers included here are remarkable people, not just because they have experience, special skills, and intelligence, but because they are leaders. They are the people who step up, who decide to act instead of only thinking about it, and who engage wildly diverse collaborators in the process, leaving the comfort of their silos of expertise to continually learn and grow. Their stories illustrate how others, compelled by their values and driven to make their work matter, can do the same.

By any of the names used to describe it, including "human-centered design," "impact design," and "social innovation design," social design is gaining traction in expected as well as surprising places far beyond the stories told here. Global corporations use it to ignite creativity and engagement within their cultures; foundations embed it into their efforts to end poverty and improve human health. Institutions in the acronym community, such as the UN, UNICEF, USAID, and DFID,⁴ use social design to develop new approaches, erase the boundaries of internal silos, and step around archaic bureaucratic processes. It is used to address crime and homelessness in neighborhoods, to revitalize America's Rust Belt cities, to jump-start economies in India, to connect hundreds of thousands of women to prenatal and infant care across Africa. It is a system that is relevant to any human endeavor.

Each of the stories on the pages that follow opens a window into a future different from the one we see in the news every day. All offer proof that it's possible to change the direction in which we're headed, and all illustrate the process for getting there. Unlike the solitary heroes of the past who decided what was best for everyone else, these collaborative leaders engage everyone they touch. Paul Polak creates new markets and industries where they didn't exist before. He helps people earn their way out of poverty by asking them why they're poor and then doing "the simple and obvious" to help them change it. At eighty-four, he is launching three new enterprises with the potential to reach 20 million more of the roughly 70 percent of the people in the world who earn less than two dollars per day.

Michael Murphy has built a global architecture practice by eschewing the traditional priorities of his industry, hacking what others accept as an inviolate set of rules as to how, and for whom, built environments are created, and by involving the communities where he builds in the plans. He is reimagining the scope and purpose of architectural design and, in the process, redefining what it means to be an architect. Ruth Gates is prodding academia into action and building a network of unusual collaborators to save the ocean's coral reefs by scaling the resilient "supercorals" she's breeding. Rachel Brown reduced violence in Kenya by activating a massive grassroots movement of peace builders, using text messages to infiltrate communities with the information they needed to understand the issues. She is now practicing her methods of defusing hate speech and spreading peace in other parts of the world.

Jeffrey Brown has built a grocery store empire in the poorest neighborhoods of Philadelphia by asking communities what will work for them. He staffs his business with enthusiastic local team members, almost one-third of whom used to be in jail. In Buffalo, New York, the Buffalo Niagara Medical Campus has changed the city's image of itself and changed its fortunes, igniting new energy and growth through a networked, collaborative approach to creativity. Erik Hersman builds connectivity to bring education and opportunity to Africa's frontier markets, creating what he hopes will become the continent's first billion-dollar homegrown enterprise. And Interface, a carpet manufacturer based in Atlanta, Georgia, is engaging residents of remote fishing villages, using its supply chain to save precious human and marine ecosystems while maintaining Interface's position as the largest carpet tile company in the world.

Unbeknownst to these leaders, they all follow the same principles and use the essential social design process. Every one of them has turned the conventional processes and fixed opinions of their industries on their heads. They have demonstrated the vision and courage to see, and then act on, instincts counter to what they were taught and told. These are principles and methods applicable to any endeavor that relies on human beings acting in collaboration.

It is not an accident that only two of the projects here are led by people who call themselves designers. Some of the best and most effective exemplars of social design don't apply that label to themselves. They are not designers in the way the term has traditionally been defined.

Because social design is based on creating *with* others and not *for* them, the old, calcified distinctions between designers and nondesigners don't count. Social design does not suffer bystanders. It depends on the collective cocreation of a future, and it succeeds when all participants feel ownership of the process. The answer to everything is to stop trying to change everything, to focus instead on transforming ourselves. These leaders exemplify how it's done.

HOW IT APPLIES TO YOU

The experience of social design is transformative. It shifts our focus away from searching for solutions in something or someone outside ourselves or searching for the "right" decision that will change things. It builds capacity within participants for resourcefulness and an ability to act on the basis of what is happening rather than what was assumed in advance. It puts everyone in the middle, as protagonists, collaborators, and mediators, instead of on the outside. It forms a collective sense of self that requires people to look more deeply into their own community and place, whether that's a global corporate culture, a rural village of two hundred people, or an urban center of multiple millions. It allows us to see what is unique about every instance and place, as well as the common needs that make us the same. It is a way to hear our own voices in context with the

voices of others who are never heard. This is the transformative power of social design to change us, so that we can apply these mutualistic principles everywhere throughout our lives. The same principles that apply to urban food deserts, coral reefs, hospitals, and violence prevention apply everywhere, to everyone.

CAUTIONS

Common sense is not the same as wisdom. A familiar expression in the systems thinking world is that "every system is perfectly designed to produce the results it produces." In other words, the only way to alter an outcome is to change the system that determines it. Applied to modern culture, this means that the system we've designed will continue to produce outcomes we don't want unless we redesign it. In order to move from helplessly watching what's happening to changing it, we must be able to see, understand, and intervene in the invisible dynamics that drive our behavior.

What systems lie behind our addiction to acquisitions? What prevents us from curtailing our destructive habits? Why do we passively accept unspoken "rules" about what is sensible or right or kosher that we know aren't right when we stop to think about them? When we do see ourselves clearly, why don't we change? Why does our species seem incapable of acting together in our own best interest? Plenty of research has been conducted to investigate these questions. Theories range from the belief that a flaw in our brains prevents us from comprehending dangers in the future, to the fact that since ours is the most violent species ever to walk the planet (the reason we survived), it is therefore simply our nature to continually war with each other and wipe out any creatures we view as competition.

What we accept as common sense is narcotic, a hegemony of shared practices and beliefs we never question because they're all we've known. "Common sense" in business can take the form of blind faith in the predictive power of a carefully written five-year plan. Or it can mean succumbing to the placebo effect of adding committees and departments as a way to solve problems that no committee or department could hope to solve, because the problems are endemic to the organization itself. Outside the workplace, so-called common sense supports our habit of discarding current devices every time a new model is introduced or putting chemicals on our lawns and into the water supply because we want to be seen as responsible homeowners.

Wisdom, on the other hand, is full awareness—in and of the moment. It is judgment applied to sound action, rather than preprogrammed motives and responses. Wisdom

is indigenous—to our senses, to our physical being, and to the places where we live. It is personal, individual, earned through experience over a lifetime. Yet we find it easier to substitute herdlike "common sense" for wisdom. We drown wisdom out every day with billions of sound bites from news, advertising, and social media. We clear-cut it and smother it under shopping malls and high-rises, parking lots and apps. The time has come to disinter it, dust it off, and reexamine it in the light of our present circumstances. The social design process is a way to begin.

Like the bicycle salesman's warning to pay attention to where we want to go, much of the process of social design may sound like common sense, a been-there-done-that kind of déjà vu. In practice, though, it feels altogether new. Aquafil, Interface's supplier of recycled materials, discovered that European Union regulations allow for shipping discarded materials out of the EU to unseen countries but not shipping the world's trash back in. Regulations that seem like common sense can prove to be unwise.

Social design requires a kind of ignorance, a state of mind some call "not knowing": a willingness to reconsider things we thought we knew, to avoid making fast conclusions based on superficial assessment. It discounts the very things that have been rewarded inside corporations: the ability to be decisive, be the smartest person in the room. Generations before our own had more opportunity to discover, had things to learn that no one within reach of an algorithm knew. It's harder, in the twenty-first century, to find the unknown, to maintain curiosity, when too much information is always available.

LANGUAGE CAN CLARIFY OR CONFUSE, INCLUDE OR EXCLUDE

Every attempt has been made to strip this book of linguistic crimes: jargon, argot, inside baseball, and the false gods of shortcuts and easy fixes. Certain popular labels have intentionally been omitted. Design thinking has gained popularity in business, social organizations, and education. It is a trope that substitutes for a more comprehensive process, a brainstorming template tied to an approach that delights people new to the creative process, helping to open their thinking and consider their users' point of view. When used out of context, it lacks rigor, standards, and metrics.

"Design" and "thinking" are two conjoined words that have become, in prevalence and purview, symptomatic of the confusing language to which all new fields fall prey. "Design thinking" has, in common with "impact investing," tautology posing as revelation. All design involves thinking, whether good or poor, and all investment has impact of one kind or another. Yet, in both cases, entire industries have emerged in service to these vagaries. The problem in the case of design is that it legitimizes the notion that the creative process can be reduced to a set of rote, daylong or even hour-long exercises with sticky notes. In the case of investing, it implies there is an alternative, acceptable kind of investment that excludes responsibility for its impact. Both expressions lend exceptional status to values that should be part of the norm, allowing people to believe they are solving systemic problems by being a little bit creative or somewhat responsible.

EVERYTHING HAS A BACK AND A FRONT

Knowledge of how to intervene in the lives of others is not a license to do so. Mastery of the tools does not include permission to use them thoughtlessly or with the arrogance that privileged people have for so many decades shown. The social design process, at its best, erases otherness, instills humility, and permeates the silos of expertise. It is not to be taken lightly or used part-time.

THIS IS A MOMENT IN TIME

Social design is a work in process. Anything we do, or try to capture, is fluid and can reflect only what we know now. The cases included here are all in process; some are still launching, some are in transition, and some are hitting one of the many inflection points they will encounter along the way. They will continue to evolve, as will our understanding and evaluation of social design—like culture itself, forever unfolding over time.

On the intergalactic part: If creatures from another planet ever talk one day about the fate of humans on Earth, the conversation won't be about how ergonomically our chairs were designed, how fashionable our clothes were, how erudite our theories, how much money we made, or how many industries were disrupted by design. They will say either that we pulled ourselves out of a near-fatal collision at the last possible second, or that we missed the greatest opportunity ever handed to any species in the infinite cosmos and blew up the sweetest planet that ever was.

The contention of this book is that it's all a question of design.

CHAPTER 2

Seeing Edges and Patterns, Scoping and Framing

SOCIAL DESIGN IS THE DESIGN OF RELATIONSHIPS, the creation of new social conditions intended to increase agency, health, creativity, equity, social justice, resilience, and connection to nature.

In cities, corporations, or any type of community, if the culture is a creative one, innovative ideas are continually generated there. In a culture aligned by just social values, those values drive actions over time. In a culture in which people have a sense of agency and possibility, possibilities are repeatedly found. These attributes become the norm. It is the inverse of a culture in which only certain people or departments are viewed as innovative, only those at the top dictate social values, and people expect that isolated events or interventions will lead to lasting change. Social design aims to create the cultural conditions in which the things you want to happen, happen more easily.

In his early work as a psychiatric researcher, looking outside the hospital walls for the causes of mental illness, Paul Polak called what he found "social architecture": the invisible social environment that, in this instance, caused only certain people with mental illnesses to have breakdowns and be hospitalized. That's a useful way to think about social design as well—as a kind of architectural practice that reimagines and reengineers an existing social structure to be more resilient and just, more conducive to keeping those living within it healthy. When applied to specific issues and places, desired outcomes can be defined with precision, concretely and fully. Polak determines the impact he wants to incite in great detail, in financial as well as human terms. He wants to create consistent access to, and a desire for, clean water in rural Indian villages so that businesses launched there will grow sustainably on their own. Marine biologist Ruth Gates has envisioned how a network of diverse collaborators, from different parts of the world, will define common values that drive the necessary actions to preserve coral reefs. Michael Murphy defines the outcomes for his built environments as creating more healthy cultures within and around them, inspiring healthier behavior in everyone involved. What makes social design universal is humans' common need for social justice and for human and environmental health. Within that, the possibilities for how to create the conditions to deliver on those needs are limitless.

At one time, design was defined as "intentionally rearranging resources,"¹ first physical ones and then also digital bits and bytes. Yet the "materials" of social design are not limited to physical or digital forms. They are human relationships and interactions as well. What makes social design different, in addition to the inclusion of human relationships, is that social design always has a higher social purpose. It is incited by a desire for greater good that drives all action in support of it. That means whatever products are developed in the process are part of a larger system or strategy. They are not the end goal, only the means by which the larger objective of a new outcome is reached. In the case of Gates, a "product" of her work is a new species of coral, for which she is rearranging genomes. But she is not creating a new coral for its own sake or to sell as a curiosity for aquariums. It is part of a larger strategy to create a system of scientists, industries, conservationists, and citizens who will use it to save coral reefs.

The skills required for social design are a tool kit of sorts, similar to the kind a very good carpenter might carry, filled with some favorite old implements with worn handles and patinas and some new tools that are shiny and sharp. A number of these skills have been part of the designer's art forever, such as synthesizing complex information and making it accessible; visualizing data and invisible systems so that insights and revelations and connections are available to everyone; reframing problems and questions to uncover root causes instead of symptoms; using abductive reasoning and sideways creative thinking; giving ideas physical form or representation and making them desirable—engaging and delighting people with the beauty or functionality of whatever has been created.

Other parts of social design have been incorporated from neighboring fields: the notion of "human-centered" design evolved from the "user-centered" shift in technology development, when a user's experience with products and services became the driving force for their design. And the idea that the best solutions are emergent rather than predicted or controlled—the use of prototypes and observation of people's responses as a way to iterate solutions instead of an "answer" decided upon in advance and force-fitted—comes from the study of living systems, the way nature works to "test" new ideas. It's the same insight that led to the Lean Startup methodology for entrepreneurs, which is slowly replacing our reliance on traditional five-year business plans.²

One challenge in describing social design, or in fact in introducing anything new into our overcrowded modern brains, is that the words available to us have lost their teeth. They've been co-opted, worn out, and shortened to sound bites so that they no longer have enough specificity to be meaningful. "Innovation," "impact," even "design," in some contexts, have been used to describe activities and outcomes that don't deserve to be called innovative, impactful, or intentionally designed. There is no solution for this except to be rigorous in the way we use words and to make sure we mean, and do, what we say. Recklessly throwing around the argot of social design without delivering on it earns membership only in a club to which there is little value in belonging. Stuffing "empathy" and "cocreation" or "collaboration" into sentences wherever room can be made proves naïveté, not mastery.

No one is served if words are canonized or overused. Empathy is sometimes treated like a rarefied skill requiring special instruction to learn, like cross-country skiing with rifles or turning out a perfect soufflé. In fact, except in sociopaths, empathy is a universal human instinct that occurs naturally. We just have to stop our own persistent internal chatter long enough to pay close, nonjudging attention to someone else. Put more simply, it happens every time we listen to another person (or another species) with an open mind. This does not mean distorting reason with unchecked emotion. It simply means learning to listen, which comes from nothing more than time and practice at seeing and feeling things from a perspective other than our own.

Similarly, "collaboration" and "cocreation" are often overused and can signal trendiness instead of rigor. The infatuation with brainstorming sessions has often made them a "cheap" substitute for a deeper, more disciplined approach. Brainstorming or "ideating" is decidedly more difficult to do successfully than to say, since it takes preparation and

The Objectives and Inquiry of Traditional and Social Design

TRADITIONAL APPROACH	SOCIAL DESIGN APPROACH
I have an idea. I need to solve a problem. I need to come up with the next killer product/service/innovation/ strategy.	I want to create a future condition in which our culture is fully engaged. people understand the importance of healthy food and have access to it.
What do we have? What do we need? How will we do it? What will it cost? When can we have it?	Who needs to participate? What is the context or system? How can we cocreate? What products or innovations will we need? How can we prototype, iterate, and learn?

strategy to develop a thoughtful, informed, and iterative creative process. It is also a fallacy that prioritizing cocreation means that nothing can happen unless a committee is present and everyone is involved in every conversation. Or that ideas aren't valid unless they're open-source. Within the many conversations and exchanges of ideas in the social design process, there is ample time and space, in fact a need, for the brilliance of individual minds as well as the power of the collective.

Recent research makes the case that groupthink is actually not as effective as individuals creating on their own.³ It is certainly not the panacea that some of its promoters have made it out to be. It turns out that creativity happens most reliably, and most acutely, in isolation. Relatedly, it is generally true that the most creative people are introverts. The opportunity in social design is to find a way to incorporate the best of all personalities and ways of thinking.

There is a rhythm to creation and collaboration—coming together, iterating, going away, using silence and solitude. Insensitivity to these natural rhythms is counterproductive and frustrating. Some people aren't comfortable in "white space," when they don't yet have a solution. Discomfited participants in group work sessions who always need to know the next step can disrupt progress.

WHAT SOCIAL DESIGN IS NOT

Social design is not charity, which is giving money in the form of a donation. Nor is it cause marketing, which connects a corporate brand to a cause for the benefit of both the charity and the company's sales. It's not corporate social responsibility, which is a for-profit enterprise's efforts to behave responsibly toward the communities in which it works. Social design begins with a set of questions different from these traditional approaches to social change and design.

Traditional design is propelled by the need to develop a product or service that solves a problem or leads to financial gain. Social design begins with a higher purpose that transcends commerce. The process and the questions asked along the way are not the same.

CHAPTER 3

Past as Prologue

UNLIKE ART, which by definition is free of commercial agenda, design has served as a powerful tool for business since the dawn of the industrial age. It has built global brands, disrupted industries, and changed our lives with technologies. As ours became a civilization fueled by selling "stuff," design was the means by which that stuff was created. And just as the nature of business has changed radically since Henry Ford invented the assembly line, transformations of the purpose and function of design have been extreme. These metamorphoses can be tracked along multiple dimensions: in the role and influence of the designer, in what is designed, and in design's intention and impact.

THE CHANGING ROLE OF THE DESIGNER

In the evolution of design as a modern profession, small artisanal craftsmen were overtaken by manufacturers of mass-produced items whose parts and assembly were reimagined and mechanized for speed and efficiency. Along the way, the object was disconnected from its creator's hand; the unique signature was erased in the interest of scale. From clothing to furniture to transportation vehicles, design and "making" became impersonal; engineering dominated aesthetics; "shelf appeal" to thousands of customers took precedence over meeting the needs of a particular person or use. Early professional designers worked in obscurity as nameless practitioners in corporate back rooms and cubicles, closely following strategies devised by managerial minds



and delivering products with predetermined specifications, adapted to fabrication on the assembly line.

In the 1950s and 1960s, the groundbreaking work of a handful of uniquely talented people, such as R. Buckminster Fuller, Charles and Ray Eames, Deborah Sussman, and Paul Rand, changed the landscape of design. With their unique aesthetic styles, they proved the value that distinctive talent could contribute to commerce; with their highly publicized philosophies about objects, modern culture, and corporations, they transformed design from a craft into a discipline. Design became a cult of personalities with distinctive visions who raised the bar for how good mass-produced design could be and who brought it from the anonymous back room to become part of the C-Suite strategy. Excellent design was accepted as a competitive advantage, with the potential to catapult the company behind it to dominance.

A decade or so later, companies including Apple, Braun, and Sony and people such as Philippe Starck and Robert Graves created evidence at a global scale that design, in the hands of a visionary, is a strategy in its own right. Now, as evidenced by the success of Apple and similar companies, great design is synonymous with consumer loyalty, competitive dominance, and innovation itself. For the designers, both unknown and revered, who made this history, it has been a journey from obscurity to fawning fame, from implementor to inventor, from worker in service to business to the go-to resource for reimagining it.

Now, social designers are transitioning from isolated experts to leaders of change, facilitating the design of more healthy and equitable communities.

FROM OBJECTS TO INTERACTIONS

In the book he was writing when he died in 1983, Buckminster Fuller declared that the purpose of design science was

to solve problems by introducing into the environment new artifacts, the availability of which will induce their spontaneous employment by humans and thus, coincidentally, cause humans to abandon their previous problem-producing behaviors and devices. For example, when humans have a vital need to cross the roaring rapids of a river, as a design scientist I would design them a bridge, causing them, I am sure, to abandon spontaneously and forever the risking of their lives by trying to swim to the other shore.¹ Fuller is considered one of the greatest design minds of all time, but decades later, it's not just the formality of his language that dates his view of design's impact; it's also his romantic opinion of the power of artifacts to transform humanity in a positive way. Though he was prescient in his prediction that artifacts would become more important, his conviction about their ability to change problem-producing human behavior was innocent and afforded a view of only one corner of the picture. We have learned, since then, that what most artifacts produce is a desire for more artifacts: bridges, rockets, cars, airplanes, vacuum cleaners, computers, phones, assault rifles, and electric mixers. We have become conditioned to want them fancier, faster, more convenient, more powerful.

As the value ascribed to design grew, so did its purview. And as technology transformed contemporary life, design followed and was itself transformed in both function and purpose. Application of the design process expanded from traditional graphic and industrial design of consumer goods into specialized practice areas of hardware, software, user experience (UX) or user interface design, information design, virtual reality, and digital games. Each of these new applications required specialized expertise; it was no longer possible to be a generalist, applying a single vision across industries and types of assignments. But the desire for design, and the influence of the designer, only grew, with more opportunities for breakthrough products and services.

An area of expertise that emerged from the digital revolution is the design of interactions between people. Instead of creating designs that accommodate how people drive a car or hold a pen, designers began imagining ways to influence how people behave, how they relate and communicate with each other and how they think, what movies they choose, and who their friends are. For interaction designers, this opened up a new world that overlapped with anthropology, behavioral science, politics, and the design of culture itself.

The rush of changes brought on by technology meant clients were faced with the need to invent in areas and at a scale that was new to them and that required skills their organizations didn't yet have. Design, and designers, became the go-to resource. Designers were asked to lead projects of a scope beyond any prior experience, breaking out of the confines of the design department, integrating technology, human resources and corporate culture, research, anthropology, scenario planning, and business strategy. Suddenly, or so it seemed, designers were helping to imagine the future, reinventing ways to develop untapped markets or reimagine cities, cultures, industries. Design became the way to create the new.
Design is defined today as "the creation of something according to a plan." The ways in which design has evolved have been driven as much by its intention—what those plans are for—as by any technological or material breakthroughs or methods of manufacturing. In other words, it is the changing purpose of design that has changed the nature of design itself. This point can be argued, of course. It's true that new technologies and materials available to designers have opened new worlds of possibility for what is designed. They have also freed up designers more effectively in service to any purpose.

THE EVOLUTION OF RESPONSIBILITY

When Victor Papanek published his seminal book, *Design for the Real World*,² in 1984, he became one of the first practitioners to speak out against his own profession, laying blame on designers for overabundant, poorly planned, low-quality, disposable, polluting, resource-depleting products. As an example, Papanek blamed the 44,257 highway-related deaths that year on the poor design of the automobile. Although his criticisms of the establishment incited attacks from his peers and product manufacturers, even blocking his work from exhibitions and forcing his resignation from professional organizations, Papanek succeeded in launching a new breed of conscious designer and establishing his own legacy as the pioneer of sustainable design.³

Since then, a growing population of designers has been committed to making the practice more responsible, using fewer, recycled materials, and designing products and supply chains with environmental and human rights in mind.

Two other events continued the trajectory Papanek launched. First, in 2002, William McDonough and Michael Braungart introduced a biomimetic approach to product design with their concept of "Cradle to Cradle."⁴ Until then, the environmental mantra had been to "reduce, reuse, and recycle," but McDonough and Braungart saw that concept as only a slightly less bad version of the larger extractive and wasteful economy (which they called "Cradle to Grave"). Cradle to Cradle is a model based on the way nature works, in which every by-product of creation is "food" for another part of the ecosystem from which it comes. Even for designers and clients who can't meet the demanding standards for certified Cradle to Cradle products, this concept brings a new level of awareness and possibility. It allows designers to use their talent and ingenuity to solve the problem of unsustainable consumption instead of making more of it.

The second event came in 2007, with *Design for the Other 90%*,⁵ an exhibition at the Cooper Hewitt, National Design Museum in New York, inspired by Paul Polak. The title

refers to the 90 percent of the world's people who live in poverty. The show was stunning—almost instantly changing perspective on the economic boundaries within which professional designers had been working and the potential that design has to improve people's lives. The show not only revealed the extent and extremities of poverty in the world but also drove home a point about the role designers can play in addressing it. Blinders came off; literal worlds beyond the professional milieu that had been invisible became impossible to ignore. *Design for the Other 90%* made the limitations of professional designers—dependent on clients who have the money to hire them and who give them carefully detailed briefs for what they should design—seem narrow and prescriptive.

This exhibition gained international attention and spawned a number of spin-off programs at the Cooper Hewitt. It became the subject of a series of high-profile articles and influenced curricula at leading design and engineering schools. The idea of design as a way to address human challenges took hold.

Inspired by new opportunities to put their talent to work for good, a growing number of designers began to rethink definitions of quality and of good design itself. Refined aesthetics, recognition for creativity or cleverness, and hefty fees as the hallmarks of excellence began to signal a former, unenlightened era. They were replaced by new standards of affordability (for poor people, not luxury shoppers), relevance to audiences who had never heard of design, and effectiveness in solving problems of inequality and ill health instead of only convenience. International health and development agencies became aware of the contribution design could make to their efforts—for example, what a brilliantly designed, affordable individual incubator for newborns could mean in reducing infant mortality. In small and quiet ways, among designers looking for meaning in their work and development agencies attempting to equalize the health and economic access of impoverished societies, a revolution had begun.

For designers, as the social design practice matures, it is bringing greater visibility, opportunity, and potential fulfillment. As it proves its effectiveness, the next step is to codify the social design methodology and make it accessible to everyone, so that it becomes a generative force in the world.

CHAPTER 4

Mastering the System

AS IN THE PARABLE OF A GROUP OF BLIND MEN, each of whom touches one small part of an elephant and then extrapolates that detail to be the nature of the whole magnificent beast, social design is easier to grasp in parts than as a whole. As with any complex system, it's tempting to make assumptions based on the parts, but learning to see the entire system is a prerequisite for mastering it.

THREE COMPONENTS

Social design is composed of a set of principles, a process for organizing actions that propel progress from one stage to the next, and a specific set of skills required for the successful application of the principles and navigation of the process.



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Each component of the system of social design plays a distinct role, and there is a causal, symbiotic relationship between them.

Principles derive from values of equity and mutuality; they set the course toward positive (rather than destructive) change, guiding decisions along the way. Once internalized, the principles become a kind of operating system that acts as a common foundation for all participants.

The *process* is a sequential list of questions that, when answered thoughtfully, drive action forward toward a specified outcome, each uncovering insights that inform and inspire the next step.

Skills enable facilitators and participants to successfully complete the process, delivering on its intended objectives. They include the expertise required to take the process as deep and far as it needs to go. The requisite skills are sometimes possessed by a single person, but more often they are contributed by multiple members of the community.

Intrinsic to all that follows is that social design is social. It can't be done alone. Unlike other types of design or creating, it's not a puzzle that can be worked out inside one's own head. Therein lies its beauty, its relevance, its challenges, and its rewards.

THE ESSENTIAL PRINCIPLES OF SOCIAL DESIGN

This list of eleven principles is a distillation of the values and approaches that define social design and distinguish it from other design domains. Whereas the process is common to many innovative or creative efforts, and many of the skills required are essential to other disciplines as well, these principles contain the distinctive essence of the system.

- 1. Ideas come from the inside, not the top.
- 2. Questions are more important than answers.
- 3. Rely on experiments more than plans.
- 4. Creating is not the same as solving problems.
- 5. Limits inspire invention.

- 6. The real story is in the context.
- 7. How people see themselves is most important.
- 8. Innovation needs a network.
- 9. Communication is the first act of generosity and inclusion.
- 10. The process is the strategy.
- 11. Human capacity is the goal.

The Principles

The principles of social design are universal and inviolate. They are the beliefs that guide behavior, the reasoning that informs decisions, an internalized map for navigating uncertainty and determining direction through the unknown. Most of them create a tension with the traditional ways in which we're used to working.

1. Ideas Come from the Inside, Not the Top

Solutions come from within the communities looking to change. This doesn't mean that you can sit down with a group of high school students, if they are the community, for example, and expect them to know how to end violence in their school or neighborhood. It means that they know why the violence happens, where, and when, and what it would likely take to stop it. That will be far more reliable information than talking to experts who have worked somewhere else. The perspective and insights required to address any challenge involving communities of people can't be found in a conference room, a corner office in a high-rise, or the halls of an academic or government institution. They won't come from anywhere that excludes the people who are most directly affected by whatever it is that needs to change. This applies to managers designing new programs for employee engagement, entrepreneurs launching new enterprises, and global development experts working on solutions for extreme poverty in an ultra-rural part of the world.

This first principle is foundational to all others, and it requires vigilance. As obvious as it sounds, it's easy to forget, and it's often inconvenient to put into practice. It's comfortable and comforting to talk to people who already agree with us and who come from the same world we do. It's easy to think we know best when we come with an outsider's "objective" perspective that allows us to see issues more clearly than those who are caught up in them, or when we have spent a lifetime becoming expert in our field. We may have seen a hundred similar challenges before and think we already know the audience well. Perhaps we simply consider ourselves particularly observant or creative. In the short term, it can seem more efficient to decide what people need rather than take the time to talk with them about it, particularly if they're not fluent in the same language of culture, country, or industry. Social design requires remembering that it's simply not possible to understand what it's like to be another person, to have that person's challenges, or to know how to solve those challenges, unless we ask.

Any changes that are not transactional—those requiring the willing participation of the people expected to change—succeed only when designed *with* them, not *for*

them. The best evidence of this logic can be found in the gap between the billions of dollars spent on employee engagement programs and the dismal state of employee engagement¹ and in the comparable amount spent on innovations for poor and unhealthy populations that have little effect on their poverty or health.²

This principle keeps us, and our work, alive and generative even after years of practice. Staying curious about cultural dynamics and realities that are new to us, learning other ways to see, feel, and know, avoids the calcification of "echo chambers," where people who look and sound a lot like we do reinforce habitual ways of thinking. It's an antidote to narrow expert status, an invitation to wisdom different from our own. And it's exciting because people who are not like us have ideas we've never imagined.

Examples of this principle in action can be found in the stories about Sisi ni Amani, chapter 12, and Brown's Super Stores, chapter 5.

2. Questions Are More Important than Answers

Einstein reportedly said if he had an hour to solve a problem and his life depended on it, he would spend the first fifty-five minutes thinking about the right question to ask, because if the question is right, the answer is easy. Whether or not it was actually Einstein who said this doesn't diminish its wisdom.

There's an art to framing the kinds of questions that lead to creative breakthroughs. The best are vague enough to leave spacious opportunity for ways to approach them, yet specific enough to provide traction for deep thinking. A common trap is framing a question that has a predetermined answer hidden in it. For example, in "How can we create a platform that will tell our story?" the highest-order need isn't known. Why create a platform? To do what, to what end? What's the point of the story? Questions with built-in answers limit options and shut down creative thinking instead of fostering it. If the highest-order need is to connect people with each other or to connect them to information that will benefit them in a specific way, knowing that opens the door to thinking about a hundred ways people might be inspired to seek information, one of which may or may not be building a platform and telling a particular story.

Powerful questions demand thinking beyond the obvious and habitual. They prevent the repetition of what everyone trying to answer them already knows. They are irresistible and intriguing when they're relevant, focusing a group's attention on the unknown. They unite people in the process of looking for answers instead of competing to be heard, arguing for their own solution as the only right one. Great questions uncover untapped possibilities and discourage prescription. They are the unassailable evidence of our agency—literally, of the ability and freedom each of us has to question the status quo.

A pioneering manufacturer of eco-friendly products had written a number of lofty mission and vision statements for itself and had a habit of using them all concurrently. The company had global imperatives that included "creating a just and equitable world," "inspiring conscious consumption," and "restoring our environment." Its mission was to "inspire a more conscious and sustainable world by being an authentic force for positive change." While everyone who worked there was proud of what the company stood for, the vision was so broad and unattainable that no one knew exactly how to move forward every day. If you're selling dish soap and toilet paper, how exactly do you act, day to day, in a way that makes the world more conscious and sustainable? What does that mean, really? Platitudes do not leave room for participation. Conflict at the company was common between people who thought their job was to help make money and others who felt that if they served the mission, business would take care of itself. When progress came to a standstill, a question was framed: "How can we become the first company to make being green the new normal?" Energy shifted immediately, and what at first had seemed both too ambitious and too simple to answer became a magnet for inspiration and collaboration. Pondering the question revealed truths that dictated strategy and the action required to realize it. The company would need to be very big and profitable in order to have that level of impact. It would need to make its products affordable to a majority of people in order to become mainstream instead of a more expensive alternative. Distribution would need to be broad enough to make the brand available everywhere, and products would need to be developed across a broad enough range to impact every category in the industry. Each of these future conditions implies the actions and standards for achieving it. They also integrate what had been two divisive agendas into an aligned vision.

It's uncomfortable to live with questions, and it's especially difficult to guide a diverse group of people to the quiet trust required to tolerate not having an answer long enough to find the right one. It causes anxiety. Often, individuals who are conditioned to like being in a controlled situation, or to take control, can't bear not knowing the next ten steps in advance. Western culture values fast solutions, quick fixes, instant expert opinions: the silver bullet.

The best negotiators are those who can longest endure the discomfort of not knowing which way a deal will go. They have the stomach to walk away from opportunities that aren't good enough, outlasting more delicate participants who "cave" in order to end the uncertainty. Living with questions works in the same way: those who can attain a comfort level with, and can even relish, the state of not knowing the answer, instead of rushing to find one, come up with more creative and unexpected ideas.

A good illustration of this principle is the work of Ruth Gates, in chapter 6.

3. Rely on Experiments More than Plans

Prototyping, which is essentially conducting experiments or pilot programs, is the only reliable strategy for navigating uncertainty. Carefully calculated plans are one of the ways we try to predict the future and give ourselves a sense of control. A relatively new idea in hierarchical Western cultures, and a difficult one, is that in the turbulent times in which we live, plans don't provide control; they don't work as well as they used to. The best solutions emerge from a carefully monitored iterative process rather than from strategies locked down in advance to the last detail. This iterative alternative approach is called prototyping. We take a step, pay close attention to what changed, and then determine the best next step to take. Prototyping requires waiting, watching, and listening, activities seen as far too passive for most driven executives.

The best place to look for proof of the power of prototyping is the living systems of nature. While nature's experiments are random rather than calculated, they illustrate the long-term benefit of taking each new step only when we know where the last one landed us. In complex systems or chaotic times such as our current unpredictable environment, the way that nature works can serve as an example. In the living world, random experiments take place all the time. Those that work continue. Does a longer tail make it easier to move through trees ahead of predators? Is a higher-pitched song heard more easily by a potential avian mate within the noise surrounding Central Park? If the answer is yes, that success is repeated.

For humans, making decisions based on emergent results is a far more reliable way to achieve an ultimate goal than trying to predict in advance what will happen. Prototyping is a way to adjust a strategy in real time, using evidence and observations of how well ideas work and how people respond to them. From the earliest stages of a concept, prototypes are essential guides to how to refine and evolve. Social design is never based on fancy predictions or guesswork. That's because when humans are involved, it simply can't be known in advance how well or even if something will work or be accepted until it's prototyped and evaluated. Through testing, observation, and refinement, prototypes are adjusted as needed so that by the time they're fully implemented, they've already been proven to work. Or, if they don't work, they can be abandoned without wasting a fortune in implementation. Prototyping is the alternative to rigid plans that, once implemented, are force-fitted to the intended people or place with disastrous results. The long-term benefit of that alternative far outweighs the discomfort of learning to wait, watch, and listen.

This way of approaching new models has found its way into business, where the Lean Startup methodology, with its concept of an MVP (minimal viable product) and the "build-measure-learn" feedback loop, is replacing traditional five-year business plans.

Prototyping as a method of acting in uncertainty can be seen in the case of the Salvage Supperclub, in chapter 7.

Three Stages of Prototyping

CONCEPT

A low-fidelity representation of an idea or hypothesis. This can take the form of a definition, a conversation, or any extremely rough representation of the concept. It answers the questions "Does this make sense?"; "Is it relevant and interesting to you?"; and "Does it have potential, and what would make it better?"

SOLUTION

A way to evaluate the function of a design and get reactions to the experience people have in engaging with it. Prototypes at this stage are medium-fidelity. They need to be detailed enough to simulate what the concept will be. The questions answered are "Does this idea work well?"; "What is it like to use it?"; and "How could its function be improved?"

WORKING MODEL

A high-fidelity prototype intended to answer questions that optimize the function of the concept. Prototypes at this stage help refine details, since they are as close to the final experience as possible. They help eliminate "bugs" and are done prior to full production or rollout. They answer questions like "Does this program or product or service work well when you use it?"

PROTOTYPING IN SOCIAL DESIGN

The purpose of a prototype is to make an idea tangible so that someone other than its creator can react to it. The benefits of even the simplest prototypes can be enormous. First, a prototype gets ideas out of our heads and off the pages of our notebooks and makes them concrete. That in itself is the biggest first step in testing an idea. If we can't give it form, in words or actions or materials, then it's not an idea that can be shared. We learn about our own ideas while making a prototype. We also learn from the people we hope will use the ideas. Prototypes start conversations; they give people a voice in the outcome. Finally, prototypes allow us to modify our ideas quickly. The expense of production or implementation can be delayed until we are certain that the idea works.

Because social design prioritizes human connection over objects, prototypes can take extremely simple forms. For example, the early verbal expression of an idea is in itself a prototype. Inventors know this well. They try out an explanation of whatever it is they're doing, present it to potential supporters to see what "lands," modify it until heads nod in agreement, and then adjust it to keep pace with the concept as it evolves. When Erik Hersman launched the first iteration of his rugged router, BRCK, he called it the Last Mile Connection to the Internet. The product and company have evolved to be far more than an Internet connection, but those words captured the essence of the concept at the time. They allowed people to react to where Hersman was going and contribute to or support it.

Prototypes help answer questions, and they are most useful if the question being asked is carefully considered and relevant to the current stage of development. Three common forms of prototype are described in the table on the previous page.

4. Creating Is Not the Same as Solving Problems

Both creative thinking and problem solving are needed in social design, but they lead to different outcomes. How to avoid the traffic jam that builds up every evening on your way home from work and how to unscramble a double-booked meeting on your calendar are discrete problems that can be solved, and solving them may require thinking creatively. But addressing the long-term issues of too many cars in a city, inadequate highways for the number of people who drive on them, and lives spent at the mercy of overbooked calendars requires a different level of thinking. The creation of new conditions that affect root causes must be addressed first, and then the symptoms that result from them.

Most of the time, problems are framed around the symptoms experienced: something is wrong or broken, and there is a desire to fix it or make it go away. But whenever human behavior is involved, there are invisible forces that cause the symptoms observed. Usually, focusing on making the problem go away brings only temporary relief. One symptom is eliminated only to have another appear in its place. Problem solving traps us in circles, chasing our tails, using the same level of thinking that produced the problem in the first place.

Creating brings something into existence that didn't exist before.³ When done well, it changes dynamics at the system level, addressing root causes, while often eliminating multiple symptoms at the same time. What can at first seem to make a problem bigger ("Oh no, I just want to sort out tomorrow's calendar—I don't have time to stop and analyze how and where I spend my time") is actually a more efficient and lasting way to make the problem go away. Creating requires bigger and newer thinking and a vision with enough merit to become a North Star for all involved. It demands new questions and answers, fostering open-ended thinking about possibilities rather than acceptance of the way things are.

Jim Hodge spent twenty-five years at the Mayo Clinic as vice-chair of leadership gifts and strategic initiatives, and he is now associate vice chancellor of the Office of Advancement at the University of Colorado Anschutz Medical Campus. He is a perfect example of creating in action. He's personable, enthusiastic, generous, optimistic, and extremely successful at his job (which means he raises a great deal of money). He says of himself, "I have flown more than a million miles on Delta Airlines alone. I have made presidents, kings, and the Dalai Lama laugh." But no amount of travel or charm would make him as successful as he is if all he tried to do were to get new buildings built and chairs endowed. Although that would solve the problems of outdated facilities and limited access to the best faculty, as Hodge says, "That's boring to donors who want to think big and be a part of transformational change." So he listens to their dreams and helps imagine something at a scale no one has considered before. And in the end, they create new programs that, along the way to completion, build new buildings to accommodate their activities and attract the best faculty and partners to collaborate. Hodge says, "I help shape strategies around big, inspiring ideas that will be compelling to philanthropists." That is creating something new, not simply aiming to solve the problem of needing money, although he is brilliant at making that symptom go away.

The relationship between creating and problem solving is illustrated in the work of Interface Net-Works, in chapter 8.

5. Limits Inspire Invention

An expression used by sustainability experts, "tapping the power of limits," refers to the seemingly counterintuitive fact that the more narrowly a problem is defined, the more possibilities exist for addressing it. Concreteness is the stuff of creativity. For example, if a challenge is "Reduce hate speech and violence," you might sit around with a group of really smart experts and come up with some killer concepts that would, by necessity, be abstract. There is a good chance they'd be similar to ideas that had worked in other situations. But when the challenge is specific—"Stop gang X or tribe Y from shooting neighbors on the streets of Z in the middle of the night"— all that information, which at first might seem to narrow the options for intervention, opens up a far more actionable range of new ideas that are applicable to the situation. Because the ideas are place, time, and culture specific, they can be evaluated and then refined on the basis of feedback from prototyping in the context in which they'll be applied.

When undertaken without the grounding of specific, current reality, the creative process leads to too many possibilities and no way to measure their potential viability or value. All ideas become arbitrary. Deciding between them or evaluating ways to improve them is circuitous and enervating for a group to sustain. Using the limits of reality as inspiration and guardrails is the way to avoid this dilemma.

Erik Hersman and the company he founded, BRCK, in chapter 9, are useful examples of how limits can inspire invention.

6. The Real Story Is in the Context

Nothing alive can be fully understood outside the context in which it exists. A broken machine can be evaluated on its own to determine why it's not working. A water pump that doesn't function because people won't use it cannot. Nor can a violent or poor community be studied in isolation to determine why people who live there die need-lessly or don't have enough money.

We now know that everything we make and do is connected to other things and other people. The clothes we buy affect the quality of life for factory workers on the other side of the world. The car we drive affects the air quality of everyone and everything alive. Buying a phone connects us to our friends and family but also to the destruction of mountain gorilla habitat.⁴

To understand the forces in play and the overarching system in any social environment, we study the context in which what we want to change occurs. What causes the existing conditions, where do the trails lead, where are the sources, and who are all the people and places touched? What invisible dynamics are hidden behind what we see, causing the situation or preventing it from changing? The process of social design includes seeing the invisible as well as the tangible, putting people, places, chains of events, and cultural dynamics in relationship to each other. Mapping these dynamics of context transforms unseen relationships into a foundation of understanding that can be seen, discussed, refined, and agreed upon by all involved.

Paul Polak's work in India, in chapter 10, illustrates the importance of understanding context.

7. How People See Themselves Is Most Important

Identity really is destiny. It is our assumed context in the world—our self-image as we perceive it in relation to whatever society, company, profession in which we include ourselves. It defines who we are and determines the tenor of our relationships. Individuals have identities, as do corporations, cities, and countries (and maybe planets, for all we know). Identities are the relationship between the outside and the inside of us: self-fulfilling prophecies, conformity to societal expectations, and the belief we hold of what we can expect from life. It's easy for people researching communities unlike their own to assume that the point is to know them well enough to see them clearly. That's true enough, but it's more important to understand how the communities see themselves.





Map of the effects of light pollution, from a class on mapping and visualization taught by Despina Papadopoulos. (Taylor Sokolowski, Corinne Reynolds) Nairobi has been called the Silicon Valley of Africa; young people there project confidence, a sense of expectation, of groundbreaking accomplishments to come. Artisans in Mexico have a different sense of their potential: as keepers of culture and history but not as creators of new value and technology for which the world is waiting. Entrepreneurs in Detroit talk about their anger toward and mistrust of the industries that abandoned their city; they view themselves as warriors fighting to keep their communities alive. These radically different identities form, and are formed by, different expectations of what can be achieved, and their stories' conclusions are contained within them.

Organizations and individuals who hold a vision of themselves as winners tend to win, and likewise with those who feel inferior. Places are like that, too. A spark starts, people believe it can spread, and so it does. Creating a new identity can have the same effect. The beginning of change is to feel, and then to see, that change is possible.

The current refugee crisis and the mass migrations that climate change is likely to trigger will disrupt not only the lives but also the *identities* of hundreds of millions of people—torn from place and uncertain (at best) of their context in the world. Where we come from is, to an enormous extent, who we are. Culture determines the food we eat, what we learn, whom we marry, and how we live. The place where we live determines our culture and so our identity.⁵

To succeed in helping communities survive in an age of disruption, we will need to conceive of and address identities in transition, with a fluid rather than fixed sense of what is possible. Obviously, this can happen only with the full participation of those communities. The way to effect lasting social change is by influencing a community's idea of itself: how creative it is; how collaborative, how empathetic it is; who its friends are; or how resilient or just lucky it is. The creative disruption will be to help engender balance—design as gyroscope, a way to keep things right side up.

The predictive power of identity is often overlooked as a leverage point for social change, but it can begin to shift the conditions of a community by modifying the way the community sees itself. What is the current collective or individual mind-set, and is it helping or interfering in achieving the vision? When it's ignored, a group's identity can foil the best-intentioned programs.

Jade Broomfield went to graduate school with a passion to understand and solve issues of racism among people of color. She thought she knew what the problem was, and she had a pretty firm idea about how she would solve it. Not surprisingly, as she If black children are **getting** suspended more, leading them to fall behind in class, are always the ones into get in trouble with their teacher, and are looked to for problematic behavior, don't the conclusions their peers have come to make sense?

immersed herself in the communities where she was prototyping, her ideas about the problem, and the solution, changed. At first, she defined the problem as "colorism," which Broomfield defines as "prejudice or discrimination against individuals with a dark skin tone, typically among people of the same ethnic or racial group." Her research into previous studies showed that the roots of prejudice can be found in very young children and that it does lasting damage. Research from the Yale Child Study Center showed that black preschoolers are 3.6 times more likely to get suspended from school than white students and that teachers, both black and white, select the black students in their classrooms when told to actively look for problematic behavior. This learning shifted Broomfield's focus on where the solution to the problem might lie. She realized that instead of working on people's beliefs about others, improving the self-image of those who are targeted is the most effective place for an intervention. The graphic above illustrates Broomfield's logic.

Her theory was that since African American four-year-olds who have been suspended from school (more often by far male) suffer from a lack of self-confidence when they return, they need room within the school day to recognize their self-worth. This insight led to the creation of a program called Time In, a superhero-themed classroom program for black male elementary students who have been suspended. The program is based on mindfulness meditation and yoga—the latter turned into superhero moves





with the addition of a cape to make it cool. It provides space that "allows students to leave behind their suspended secret identity to practice their hero moves in privacy." Results were measured using a rubric of self-confidence, determination, leadership, and discipline. Broomfield was able to shift these four-year-old boys' image of themselves, to help them overcome prejudice and see themselves as worthy of respect and love. Her plan is to introduce the program in schools throughout Newark, New Jersey, in order to continue testing and tracking long-term change.

The principle of identity as destiny is evident in several stories in upcoming chapters. Jeffrey Brown's customers needed to see themselves as respected voices before they could become his valued advisors. Kenyan citizens needed to see themselves as capable agents of peace in their own right in order for the peace-building movement to work. And partners in Buffalo, New York, had to identify as part of a creative collective rather than turf-protecting individual entities.

8. Innovation Needs a Network

At any meaningful scale, creativity is collaborative—perhaps not the strike of lightning, but the realization or fulfillment of any audacious idea. Quantum mechanics teaches us that the relationship between objects is a greater determinant of their character than are the objects themselves. That's true of human beings as well—we are formed

by the nature and quality of our relationships: to each other, to all nonhuman beings, and to the machines and technology that are an integral part of our lives. Our health and happiness depend on our social networks, on the quality and number of relationships we have with friends, neighbors, colleagues, and family. Likewise, our relationship to nature has been proven to affect our mental and physical state. And, not least, our relationships with the technology and devices we use affect our motor skills, our senses, and the substance and depth of our interactions.

In social design, the focus is on identifying and strengthening the relationships that lead to healthier societies and individuals. Understanding the needs and norms that inform behavior, and helping communities gain perspective on them, contributes to relationships of trust. Strengthening connections and opening communication supports breakthrough interactions in which people are more able to recognize values they have in common. This may sound obvious and simplistic until it is witnessed in practice—in the middle of Philadelphia's food deserts, in the slums of Nairobi, in large corporate cultures.

Even when this concept makes sense intellectually, it's difficult (at least for those of us in the United States) to act on, because it requires shifting from a transactional mind-set to a relational one. We are taught to measure, and therefore value, transactions. Investors, online retailers, and businesses that count clicks or sales as indicators of success all see the world in numbers. It's a clean accounting system, and with the right analytics, the organization always knows where it stands. Customers can be incentivized to do more of one thing than another, to choose one brand or movie over another, to buy the latest phone or service before they actually need it; but that serves only to solidify current behavior. In our personal lives, social media place value on transactions: likes, clicks, and numbers of friends are easier to track than the quality of friendships. Whatever the context, working at a transactional level cannot change the larger systems within which transactions occur.

Because we are interconnected, and because of the degree to which relationships form our thinking, it stands to reason that invention, at any significant scale, is not an isolated act. It is the product of a network of ideas emerging from multiple minds. All of our opinions and ideas are influenced by those of others.

The role of a successful designer has traditionally been that of a one-of-a-kind magician or hero with special talent who can be called upon, simply by plumbing the depths of his or her unique imagination, to deliver ideas more brilliant than normal

mortals conceive. An architect or a product designer, for example, typically gets a commission, goes away to perform his or her magic, and then comes back to deliver the brilliant creative solution in the form of a building or product. He (still mostly he) is seen as a visionary for his point of view about what is timeless or modern, what consumers will want, or what will lend just the right cachet to a city looking to attract businesses or increase tourism. In this creative process, he doesn't consult or collaborate with the people intended to occupy the building, because his sensibilities alone are enough to determine what is best for them.

In social design, creativity is derived from collaboration among cohorts of people who ideally, in the aggregate, have a 360-degree view of the system in need of change. Within these cohorts, it is frequently discovered that what needs to happen is already common knowledge. In a project in Sierra Leone, for example, when ideas for how to improve maternal and infant health were sought from the health workers, families, and individuals in the villages most in need of it, everyone knew that in order for women to travel to health clinics, roads would be needed that didn't wash out during the rainy season; everyone also knew it would take more and better clinics to successfully care for a greater number of women. They knew that many husbands stood in the way of their wives' travel to a clinic because they wanted to keep them close to home. In complex social systems and institutions such as this, what needs to be done may be self-evident, but it will take a network of people creating together to come up with a viable, holistic solution.

Finding answers to common problems is also a collective act, not the work of one or two people in the group. It takes the combined perspectives of, say, villagers, policy makers, health-care professionals, and experts of many kinds to imagine different dynamics that might change the current state. Actionable ideas accrue through layers and iterations of conversations, notions passed along from one person or team to another. Ideas with the potential to help large numbers of people are both broader and more granular in scope than individuals can imagine or realize on their own.

A useful example of collaboration and networked creativity is the Buffalo Niagara Medical Campus, in chapter 11.

9. Communication Is the First Act of Generosity and Inclusion

The ability to make oneself understood, and heard, is more important than money or a big idea or new technology. Examples abound of ordinary ideas that, when presented



by a magnetic communicator, connect with large audiences and are accepted as sheer brilliance. We know less about the truly brilliant ideas that are presented in a boring way, of course, because no one notices them. Communication makes all the difference in what we know, what we believe, and how we relate to ideas and each other.

But the importance of communication can be found in its etymology. "Communicate" means to impart, inform, unite; literally, to make common. Communication is the essential way we invite people who do not think like we do to join a conversation. It's the way we begin our story, whether in a two-person conversation or a large public meeting, so that anyone listening can get on the bus and come along on the journey. Whether the language we use is verbal or visual, tacit or explicit, communication is the way we connect to each other. It's the circulatory system of every human ecosystem, team, or tribe, carrying critical information that allows people to think and act together, to stay together.

Alfred Edward Kahn, a beloved economics professor, said, "If you can't explain what you're doing in plain English, you're probably doing something wrong." Like all

real wisdom, Kahn's grows more profound over time and when applied to new contexts. Many centuries earlier, Confucius was asked, near the end of his life, what his first act would have been had he ever attained power over the Chinese empire. He said, "I would rectify the language, and make words mean what they are supposed to mean again." These two bits of advice are almost all that's needed for real communication between people: choose words for clarity, and make sure we mean what we say.

The language we use to communicate has become, in the case of specialists, more arcane and exclusive, with acronyms meant to convey insider knowledge. Or, in the case of social media, more abbreviated, less genuine, filled with expressions meant to stand for other expressions. Special skill and practice are required in order to communicate meaningfully in media in which content is prescribed and hampered by limiting protocols.

Communication works in three essential ways: to define an idea or proposition in a manner that conveys it accurately; to create understanding by explaining how something works or what is needed; and to make a proposition desirable or attract people to participate. For example, if someone wants to form a new group or organization, communication is first needed to define the organization and its purpose. What's the point? What kind of group will this be, and for whom is it intended? Definitions are succinct and precise. Next, in order to make the group work, communication is used to explain the logistics, structure, and rules. When does it meet, how often, and where? Is it location based or virtual? Are there membership dues? Expectations? What value will people get from it? Finally, communication engages a larger audience by inviting people to join, or recruiting members. Words are chosen to sell or attract. Communication is easier to design when the role it plays at these three stages is considered and not confused. The sections that follow offer more detail about how each stage of communication works.

Whatever the context, communication, whether in language that's tired or energized, is the only means we have to effect change at any scale. Regardless of how big an enterprise becomes, everything begins as a conversation between people. If the conversation is interesting enough, it will spread.

Definition

All change begins with language, and if the language used sounds like what's been said before, nothing may change. It is the precision of word choice and sequencing that either

succeeds or fails to define an idea so that it registers with people who hear it. This is the most challenging phase of communication and the most important. It is also the one that is typically compromised by time or frustration with the difficulty of doing it well. Definitions are like acorns, which contain all the ingredients of a fully grown oak tree but manage to do it in miniature. Within large organizations, enormous amounts of money and time are devoted to initiatives that were not fully defined in advance and that inevitably fail or limp along for years as "black holes" consuming resources.

Understanding

Next, communication creates understanding. This can be thought of as the "kick the tires" phase. What kind of team will be required, and who will the team members be? How will the enterprise work, how much will it cost, how long will it take, and what will be its strategy? This is where the structure and function of a proposition are determined. It's an operator's manual that disseminates information to those who need it in order to make it manifest.

Engagement

Finally, communication incites engagement. This is the phase at which relationships are developed with a broader audience—all those for whom the proposition will provide value. Here, a clear picture of the benefits of the new idea, the role it will play in people's lives, what will be expected of them in return, and how they can participate in it are brought to life. This is where emotion enters—where the benefits of clear definition and understanding form the basis of communication that creates desire.

The Role Writing Plays in the Practice of Social Design

Nothing brings the need for clarity and specificity home faster than writing. One might think that the primary purpose of putting things into words is to enable others to understand them, but that is actually just a fortunate side effect. Writing is the best way for a writer to learn about himself or herself. It is a priceless but free method of self-discovery.

The hardest thing of all to write is truth: not the kind of truth in writing based on facts, or critical writing that refutes or supports someone else's theories. Not the kind of writing that tells an anecdote about something that happened at a conference or on the subway one morning. The most difficult ideas to convey are the unspoken truths that determine what we believe and, therefore, the way we behave. Recognizing those truths well enough to put them into words is transformational for any thinking writer.

Writing is important at every stage in the social design process. Team members might think they all understand the vision of what they are creating, but until that vision is put into writing, it's likely that everyone will have a slightly different picture of it. Capturing it in words is the only way to know. It's also a great way to check in and get consensus throughout the process. Taking the time to confirm and capture progress in words realigns people, making it easier to focus action and make decisions.

Rachel Brown and her work with Sisi ni Amani, in chapter 12, illustrate the essential nature of communication and its central role in social design.

10. The Process Is the Strategy

If social design had a secret sauce that could be bottled, this would be it. Participation in a collaborative creative process is, in and of itself, the way to repair much of what is broken in inequitable and dysfunctional cultures. The overused expression that the destination is really the journey is not just a platitude in this case but a principle that can be witnessed in action in the space of a few hours. When diverse stakeholders engage in real dialog about their needs, and embark on a shared journey to create a new reality, it breaches the isolation of fixed, hierarchical roles. When the process is well facilitated, people learn new things about each other. Truth and aspirations are put out on the table and, in being spoken, lighten the atmosphere, in the same way an inrush of oxygen makes it easier to breathe. Common ground takes form, becoming a way forward in new relationship with each other. Observing a current state objectively and mapping it, without agenda, develops a shared sense of reality and enables us to see what's there, not what we want to see. Preconceived ideas fade away in the light of honest inquiry, becoming shared perspectives. What people have in common overtakes what makes them "other."

Participation in the creative process transforms people; it develops skills and capacity as nothing else can, with the incentive of taking part in the creation of something new. The process has individual benefits that last far beyond the rooms in which conversations are taking place.

In the process of articulating a shared vision, people gain confidence and learn to be better communicators, listening and processing feedback. Old relationships deepen, new ones are formed. In prototyping, people do, and learn from doing. They get out of their heads and into their bodies, moving instead of sitting in chairs or at a computer all day. Moving awakens senses, which makes people more fully alive and aware.

Creating can take place only in the present, not in the past and not in a future time. Living in the present has proven benefits in relieving anxiety. It offers temporary amnesia about what haunts us or causes anxiety.

Making decisions on the basis of what is happening in the moment teaches us to navigate uncertainty and think on our feet; it gives us sea legs and better balance in uncertain times. Paying attention is the best instinct for survival, ever. We are more observant, fluid, agile. In his introduction to *Guns, Germs, and Steel*,⁶ Jared Diamond makes the case that the average New Guinean is smarter than the average Londoner. The New Guinean travels through the jungle every day and needs to be alert, responsive, aware of random threats to his survival. An average Londoner sits passively on the same Tube train every day, lost in his newspaper on his automatic journey to the same office, largely protected from the dangers of the world. One lifestyle rewards alertness and awareness; the other makes its participants dull.

More than anything else, creating is satisfying, gratifying. It provokes an inner joy, a sense of self-reliance. It fills a void in ways that are benign and generative rather than acquisitive or destructive.

These are just some of the ways that the processes of creating and implementing social design are in themselves strategies for positive change. At a practical level, Michael Murphy and his firm, MASS Design Group, in chapter 13, provide excellent examples of how reinventing a process transforms its participants and changes its outcomes.

11. Human Capacity Is the Goal

The worlds of design, development, and enterprise are filled with product and service innovations that solve isolated problems for a while. Examples include a container to carry water more easily, storage bags that delay decomposition of harvested crops, technology that connects farmers to distributors and daily market prices, and text-based services that deliver vital information on prenatal care. The good ones have succeeded in easing the burden of carrying water, decreasing postharvest food loss, and improving maternal and infant health. In business, hopes and resources are invested in new products that will turn a company around, a single, winning hit that will open new markets, improve earnings, ignite a culture; or another line extension that will carry on the momentum of the original product forever. There is no such thing.

Isolated successes are isolated. They fix parts but don't lead to systemic or sustainable change. The purpose of social design is to improve human capacity: to infect and inculcate communities with the tools, skills, and agency to help themselves become more healthy, productive, and creative. That should be its measure.

As noted in the introduction to the social design system, these eleven principles are based on the values of equity and mutuality. They connect the process of social design to its higher purpose, and they keep momentum directed to the intended outcomes. With hard work and attention, they can be internalized, as in the operating system of a computer or our unconscious mind. They can then inform the way we process information and make decisions, freeing us to concentrate on what we're trying to do. As with a good tennis player, for whom form and responses are automatic, internalized principles of the game allow us to concentrate on the strategy for winning.

A useful way to summarize the social design principles in action is to look at how they differ from the current norms—how they shift behavior and thinking toward an approach that delivers more social value and more effective outcomes.

Finding inspiration inside the communities closest to the issues leads to more relevant, sustainable solutions than does force-fitting ideas determined by a group of "outsiders" who decide what's best. It's less convenient, and it requires the courage to deal with unanticipated answers, but it's far more interesting and productive. The failures of force-fitted solutions are legion in the world of social innovation.

The way to do this is to use inquiry as a guide, rather than trying to rush to answers without full understanding. Asking questions keeps minds open to better ideas instead of formulaic ones, and it supports collaboration rather than reinforcing the existing silos of expertise.

Prototyping is another type of inquiry, based on experiments that represent the concept at various stages. Prototypes provide an opportunity to get feedback from an audience in real time, and they provide a way of making decisions based on evidence rather than guesswork. Instead of relying on plans developed and estimated in advance, which most corporations or funders require before approving an initiative, prototypes are an opportunity to refine and change direction early if something isn't working, and to do so without the expense of full implementation. Prototypes improve our ability to make decisions when faced with uncertainty.

OLD	NEW
Top-down	Inside out
Decision	Inquiry
Strategic plans	Prototypes and feedback loops
Solve problems	Create; then solve problems
Broad concepts, generalities	Tap the power of limits
Focus on parts	Map context
Focus on what we think of others	Focus on what people think of themselves
Expert	Networked innovation
Strategy predetermines actions	The process is the strategy
Communication is control	Communication is generosity and inclusion
Measure data and transactions	Measure human capacity

The Before and After of Social Design

Most businesses, and even most traditional designers, work to solve problems—to make something problematic go away. Much of the time, that way of framing change focuses on symptoms rather than root causes. Creating is the act of bringing something into existence that didn't exist before. It begins with a vision of what that "something" is. When the vision is shared by the people affected by it, it creates the energy to realize it. Creating is a distinct process of envisioning and ideation, separate from solving problems but more important for bringing about systemic change. Many problems will be solved along the way to realizing the vision, but they will be solved within the context and in service to the vision.

Limits are an innovator's friend. The more specifically a problem is defined, the more creative will be the solutions inspired by it. For companies accustomed to making decisions from the top, this is a new way of working. It's related to the first principle of social design—of solutions coming from inside the communities affected, or "on the ground." When problems are defined on the basis of assumptions instead of concrete detail, they become generalizations, which lead to pat solutions, never real or relevant innovations.

The industrial model of business, which has spread into much of society, is that the best way to tackle big issues is to break them down into parts. In social design, the social architecture at play in any situation is vital to understanding real cause and effect. Mapping context is the way to distinguish between root causes and symptoms, to understand the best place and way to intervene, and to determine what the consequences on other parts of the system might be.

The way in which people see themselves determines how they behave, their capacity for change, and their expectations. It is often overlooked as the place to begin social change. Much of the focus of consumer research is on understanding and influencing people's behavior, typically their buying habits. However, when the goal is to increase human capacity for creativity and healthy behavior, social change has to begin with their relationship to themselves.

In a society, such as ours, that reveres expertise, it is assumed that nonexperts in any given area will be less able to contribute. Experts like to keep it that way. For innovation that moves large communities of people, collaborative, networked creativity ensures that the ideas most important to a community are the ones that will be implemented—and that the whole community will support the vision that derives from them.

Participation in the social design process changes people. Coming together, listening and being heard, and engaging in creating together evokes changes in attitude and gives people a sense of agency. That is both the method and the point. In contrast, the typical way that organizations approach change is to tell people what is expected of them, based on what a small group of experts has decided. The impact of that is to decrease individual agency and diminish potential.

In a hierarchy, communication is a means of control. It is the way to tell people what we want them to hear. It's a form of self-expression. It's also an indicator of status when it comes to who has access to critical information. In social design, communication is the way to share understanding and to distribute information so that everyone can make intelligent decisions. It is the way to include everyone in the process as equal participants.

Finally, though our reliance on data has only increased, all the data in the world can tell us only what has already happened. What should be measured is the increased capacity of people to be creative, solve challenges, and help themselves.

The Process

In plain language, the essential design process looks like this: (1) Be broadly curious and learn as much as possible about the context of what you want to change. (2) Make sense of what you have learned, and reframe the problem to be solved. (3) Come up with some ideas—more is better. (4) Test the best concepts to see what works. (5) Measure and evaluate the results, and then figure out what's next.

These simple, inviolate steps are required to create anything at any scale. They relate, to use a common metaphor, to the exquisite and immutable process of gardening: (1) Prepare the soil. (2) Plant. (3) Tend (water, weed, stake, fight off the bugs). (4) Harvest. No step can be skipped, nor can the steps be done out of order.

Social design differs by adding a step in front of the traditional design process. It begins with why you want to change something, not what you want to change. It makes the first order of business to identify the highest-level need. The next step is to map or measure current reality as fully as possible. To return to the garden metaphor, the first thing to determine is why a garden is desired in the first place. What should it accomplish? Is it to grow a few tomatoes and cucumbers for fun or to provide a reliable source of food for a big family? The answers to those questions inform all the steps that follow. The gap between that desired outcome and the current state (whatever reality exists at the moment) is a tension that incites creative energy. The purpose articulates desire, or, to put it another way, the purpose locates the itch, and the process becomes the way to scratch it. Actions are then framed within the context of the vision, ensuring that all the steps along the way add up to the desired end state.

An example is a project by a young woman named Meghan Lazier. Her vision was to provide greater mobility for elderly people and people with disabilities. The system currently available to this audience, called Access-a-Ride, was riddled with problems. Riders were expected to give the service a two-hour window for pickup, which meant they could never know whether they would sit in doctors' waiting rooms for hours or risk being late for appointments. On the other hand, once the van arrived for pickup, people had five minutes to make it out of their house—a challenge for anyone with mobility issues. Dispatches were unchangeable once they were given to the driver, so even if the service erred and was taking the rider to the wrong address, the route could not be changed once set. Had Lazier's goal been to fix Access-a-Ride, she would have accepted that model and tried to bring efficiencies and incremental improve-



ments to the service. Because her vision was to increase her audience's mobility, her thinking wasn't limited by what was already available; she could imagine a wholly new model for systemic change rather than iterative modifications. Her ultimate concept borrowed aspects of various communication and transportation systems to imagine a service closer to Uber than to public transportation.

Applying the process is not as easy as articulating it. There are nuances and complexities, unexpected twists and turns, just as with gardening. There are limitless things to be learned if one aspires to be a master gardener, from soil composition to the history and preferences of various species and their adjacencies. Like the complexities inherent in designing with human beings, these simple formulas of prepare, plant, tend, and harvest distinguish sequential stages, but in themselves they don't provide all the guidance needed to propel action from one to the next.

What is transformational, though, is asking questions that must be answered in order to continue, as in one of those quizzes that won't let you advance until you complete a page. This exemplifies the principle that questions are more important than answers, or, in this case, more important than labels.

In the process described in the following sections, a series of questions direct action and drive progress from initiation to evaluation. When completed thoughtfully and thoroughly, each step is a source of power and forward momentum that leads to a set of insights, providing an exciting springboard for the next question. In reality, the process is circular rather than linear, repeating for each new phase of an ongoing initiative.

A core set of activities are undertaken at each phase of the process, adapted to the work required. These activities are (1) watch, listen, measure; (2) write, visualize, map; (3) think critically, develop insights; (4) communicate, engage, collaborate; (5) experiment, play; and (6) prototype, refine, measure.

WHY ARE WE HERE, AND WHAT ARE WE TRYING TO DO?

What are the conditions, needs, people, and influences that have brought us to this place? What is the need or opportunity that makes the effort worth it? Are we here to design a hospital or to create an environment that makes people healthier? Those questions lead to very different answers. What is the North Star? What is the shared vision that incorporates everyone's needs? How can we make it more compelling, more inclusive? How can we make it inspirational yet concrete and actionable? How can we say it specifically enough that we'll recognize it when we get there?

Look for existing beliefs, resistance, relationships, arbitrary boundaries, and assumed roles of either leadership or powerlessness. Are all the voices that should be heard being heard? If not, how can they be added? Writing specifies both path and destination. At every stage, put observations, ideas, and insights into words. What's the story? Draw as well as write what's being learned. Build and refine the picture throughout the process.

There is a critical difference between documenting what has been learned and developing a set of insights that propel the work forward. What does it mean? How is it connected or disconnected from other insights or prior assumptions?

Ensure that everyone has an opportunity to contribute and that information is available and relevant at all times. Establish protocols for communication or

WATCH, LISTEN, MEASURE

WRITE, VISUALIZE, MAP

THINK CRITICALLY, DEVELOP INSIGHTS

COMMUNICATE, ENGAGE, COLLABORATE

platforms where learning can be shared as the process evolves. Look for natural leaders in each community, and bring every group to the table to participate in discussions. Help form collaborative relationships by allowing everyone to see what is to be gained.

Don't rush to answer this first question or assume that the answer is obvious. Try on different "reasons why" to see what increases energy and provokes conversation. The answer to this question must be powerful enough to carry momentum and engagement through periods of difficulty and frustration. Having a clear reason why the process matters is often the best source of unity and purpose.

The designer's role throughout is to listen to pieces and assemble them into cogent language that captures the aggregate of what is heard and seen. Prototyping is taking place every time that happens and people respond, every time what's captured is refined. These early, low-fidelity prototypes are even more important than later, high-fidelity ones because they set direction and coalesce stakeholders. Presenting the vision to everyone who needs to get behind it can be done in a simple conversation or a carefully structured presentation. Create as rich as possible a picture of the desired end state, to ensure that everyone is seeing the same thing.

This phase is complete when the importance, urgency, and purpose of an undertaking are clearly articulated and agreed upon by all affected.

WHAT'S THE

EXPERIMENT, PLAY

PROTOTYPE, REFINE, MEASURE

WHAT'S THE CONTEXT?

Who are the stakeholders? The movers and shakers? Who has trust, credibility, convening power? Where? How? When? What are the invisible dynamics and underlying structure? What are the relationships between all the components? Where is value created, and where are the gaps and deficits? What can be seen, really, from mapping the context?

This is the research and learning phase, also called WATCH. immersion, and it's often deep and ongoing. Learning comes in many forms-from interviews, ethnographic research, reading about the past and the future. Most important is that listening takes place with an open mind, absent of agendas, and that all those who will be affected by the initiative are included.

> This is the place to map the current state or current reality. Capture what is learned from research and translate it into visible form that can be shared. Articulate the system so that it can be recognized by all those who need to engage with it. Show the hidden relationships, processes, and current and potential value. Map user journeys, value given and received, barriers, and opportunities.

LISTEN, MEASURE

WRITE. VISUALIZE. MAP

What has been learned? What does it mean? What are the commonalities and differences in needs for various stakeholders? How do they align or conflict? Avoid falling back on labels or titles for the information presented; instead, capture what it means.

Capture and translate all that is learned from listening to communities, distill it down to insights, and use these to contribute to a vision big enough for everyone to see themselves in, yet specific enough to define the action required to make it real. Find a rhythm for communicating that balances time for input from everyone with the solo act of crafting the words that express the whole.

This is an iterative process that takes multiple rounds of translation, mapping, and refinement to see what the words and images communicate. Try variations, from the expected to the audacious, to see how they connect people.

The map of the system is a prototype, an opportunity to get reactions and refine. Prototype the desired future state as well as the current reality. Find a way to quantify the differences between them. That gap is creative energy.

Depending on the size of the undertaking, this phase can last a matter or weeks or months. It is complete when the whole system at play and its dynamics are understood.

> WHAT ARE THE PRECONDITIONS FOR SUCCESS, AND HOW WILL WE KNOW IT?

THINK CRITICALLY, DEVELOP INSIGHTS

COMMUNICATE, ENGAGE, COLLABORATE

EXPERIMENT, PLAY

PROTOTYPE, REFINE, MEASURE

WHAT ARE THE PRECONDITIONS FOR SUCCESS, AND HOW WILL WE KNOW IT?

What needs to be true in order to reach the desired outcome in every dimension? What will have to be changed in order to succeed? What will success look and feel like? How will that state be recognized? What are the indicators and metrics?

WATCH, LISTEN, MEASURE Facilitate dialog about conditions that will exist when the outcomes are realized. What are all the dimensions of those future conditions? For example, in developing the vision for the Buffalo Niagara Medical Campus (chapter 11), the team built a "picture" together of how Buffalo would look, feel, sound, and work once the vision was realized. What would it be like to live in the neighborhoods near to the campus? How would people get around, where would they buy their food, and what would they eat? What jobs would they have? What would journalists be writing about? It's not easy to step out of the reality we know and imagine every aspect of what we want to create, but this exercise brings dimension to the vision and helps confirm the actions needed to get there, as well as who needs to be involved in making it happen.
Represent the future conditions as fully and richly as possible.

Where are the priorities, and which conditions will, if realized, trigger others? What will cause a ripple effect, and what will be affected?

Seek advice and engagement from a wider circle of stakeholders and experts. Now that it is becoming clear what success looks like, help can be gathered from people who have done it before.

Try scenario-planning exercises. What if this or that happens?

Create representations of what has been envisioned. Use words, images, and interactions. Imagine how it will feel, and engage people who will be changed by it to get their input.

This phase is complete when every condition that must exist in order to achieve the vision has been identified and when clear indicators of how that condition will be measured have been defined. WRITE, VISUALIZE, MAP THINK CRITICALLY, DEVELOP INSIGHTS

COMMUNICATE, ENGAGE, COLLABORATE

EXPERIMENT, PLAY

PROTOTYPE, REFINE, MEASURE

WHAT ACTIONS CAN WE TAKE TO GET THERE?

WHAT ACTIONS CAN WE TAKE TO GET THERE?

What are the things we can influence? What can we act on? What is the priority, based on where we want to go? What actions will have a ripple effect on the system, and what is the most efficient path? Who needs to be involved among those who know how to make it happen and those who need to be engaged in order for it to be sustained? This is the time to generate ideas—as many as possible and without restrictions of practicality. It's the place to let imaginations run wild without judgment. Once a surfeit of ideas have been generated, they can be evaluated on the basis of their relevance to the purpose, their relative cost, and their impact.

WATCH, LISTEN, MEASURE

WRITE, VISUALIZE, MAP What information, opinions, and expertise are required to determine specific initiatives for implementation toward the goal? What happens when each action is undertaken? What changes or doesn't change? With the desired indicators in mind, how do the actions undertaken create movement toward them? Define individual objectives, and document activities and plans so they can be understood by all. Create a visual representation of projects in relationship to each other; track schedules, budgets, and activities. What is being learned through planning and acting? What does it mean, and what are the implications for moving forward?

This is the heart of project management, an activity in which designers excel. Become the center for information, progress, news, and coordination of roles and responsibilities.

Build time into the schedule to experiment, get feedback, and change plans. Avoid transitioning to automatic implementation mode. Embed creativity into action.

As often as needed, prototype with users, creating real-time feedback loops that improve the end results.

This phase is complete when there is a clear and exciting series of interconnected ideas for action that, in combination, will achieve the desired outcomes. These will be defined within the scope of what can be effected by the participants involved.

DOES IT WORK?

THINK CRITICALLY, DEVELOP INSIGHTS

COMMUNICATE, ENGAGE, COLLABORATE

EXPERIMENT, PLAY

PROTOTYPE, REFINE, MEASURE

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DOES IT WORK?

Did it get to the people it was meant for? Did they use it? Did it work for them? Will they continue with it? What needs refinement, what should be eliminated, and what would have been better if done differently? What can be measured over time? How can the community be prepared to become more self-sufficient? What skills, tools, and support do the participants need?

WATCH, LISTEN, MEASURE

WRITE, VISUALIZE, MAP THINK CRITICALLY, DEVELOP INSIGHTS COMMUNICATE, ENGAGE, COLLABORATE

EXPERIMENT, PLAY

PROTOTYPE, REFINE, MEASURE

In use, what are the responses and how is the uptake or acceptance? What do people say; what do they do? Have they changed their opinion or behavior? Are the people who will determine its success involved? Complete the story. What is the whole picture so far? What can be captured for others to see and build upon? What has been learned? What does it mean?

How can the learning be shared with the community, and how can it be used to build capacity? How can it be shared within a larger community for extended use and learning?

What is the best way to communicate a complex and unique story to others? Experiment with different mediums, forms, and stories.

How are results defined? What is completion? What has changed?

This phase is complete when an evaluation has been made of the initiative's impact on all parts of the system (mapped as the context). The purpose is to inform the next actions to take.

A SHORTHAND LOGIC TO KEEP THE CREATIVE PROCESS ON TRACK

It's easy to become drunk with the thrill of generating ideas, with the promise that collaboration holds and the learning and precise refinement that prototyping makes possible. We can become idea-happy, coming up with cool stuff because it's fun to do. With multiple collaborators involved and a multitude of ideas on the table, it takes a bit more work and a good deal of discipline to keep the ship headed where you want to go.

Strategic Path

Following the simple logic outlined here creates the conditions for maximum creativity and collaboration and keeps the experimentation on track to achieve the ultimate vision.

Define a North Star. Keep it on the wall or on your forehead.

What is the highest-order reason for the initiative or enterprise? Why does it matter, ultimately? Grand, abstract statements don't work here. Saying that the purpose of a program is to "end poverty in the world," "fix prison systems," "end injustice," or anything else that is noble but too big and abstract to provide even a clue of where you will begin is too vague. It lacks the concreteness of place, audience, and approach. For example, the way a government agency would approach fixing prison systems is very different from the way an organization offering mental health care would. Specificity about the approach helps clarify strategy. On the other hand, visions that are too mundane will lack any real purpose at all. A vision to "launch a successful product," "plan a kick-ass marketing campaign," or "bring communities together" is too tactical and doesn't include the reason why the effort matters. It will not sustain engagement. A viable North Star is specific enough to act upon and measure and big enough to motivate and justify the effort invested.



Identify the conditions that need to exist in order to succeed.

What needs to be true? What will have changed? What will exist that doesn't currently? Who needs to be involved? This will take some thinking but will be worth it.

For example:

Our influence will have to be great enough to create a tipping point (in a specific geography or category).

Our products will have to deliver value at a price that enough of the intended audience (defined specifically) can afford.

Our distribution will have to be broad enough to reach our intended audience (again, specifically defined).

Decide what can be done to meet those conditions.

What can you do about it? What products, plans, and actions will create those conditions? This could include a product, a marketing plan, a different perception on the part of customers, or a different structure for the organization or technologies.

Determine the criteria by which the actions will be judged successful. For every product, plan, and action, specify the characteristics or qualifications required. What are the performance and cost characteristics required? What are the indicators for success?

Map how all the elements fit together to make a system.

Draw a map of how they are related, how they influence each other. Include invisible dynamics such as value provided and information flow. What will the system look like when it's complete?

At this point, it should be more apparent where creativity can be applied to develop ideas that meet the criteria, and that accomplish the required objectives, to get to the North Star. This strategic path ensures that the time and energy invested will lead to the ultimate vision—and that every component will work as part of a system.

The Necessary Skills

Skills are needed in order to apply the principles of social design to the process. They are the facilities with which actions are taken. The greater our mastery of the social design skills, the more objective our thinking can be. The expression that "if you have a hammer, everything looks like a nail" has an inverse corollary. When you have an unlimited toolbox, your ability to evaluate and choose relevant action is unconstrained. Skills build confidence, resourcefulness, and flexibility. Since the problems uncovered in social design are often different from those anticipated, mastery of a broad range of skills is critical. Both hard skills and soft skills are needed.

Hard skills are defined as those specific to an industry or profession. An architect drafts; information designers are expert with mapping software; data scientists wrangle data by doing things with a spreadsheet that mortals can't follow. Filmmakers seamlessly shoot and edit what's in their imagination. As with any other profession, designers master a wide range of hard skills in their daily work, such as synthesizing and visualizing information or mastering dozens of software platforms. Typically, hard skills are the kinds that can be commissioned. Hiring an architect, a data scientist, or a filmmaker brings in expertise that others on the team can't replicate.

Soft skills are the "personal attributes that enable someone to interact effectively and harmoniously with other people,"⁷ such as collaborating, communicating, and personal leadership skills. They are profession or job agnostic, and they determine to what extent people succeed in a work environment. Soft skills are more difficult to teach and learn, and they can almost never be outsourced to an expert or professional. According to Jeffrey Brown, soft skills are now recognized as being so important that they have been renamed "power skills."

The most effective practitioners of social design have a mix of both hard and soft skills. Because the process is so dependent on interactions between people, there is a social or soft aspect to every hard skill deployed. Experts of all kinds, when cocreating with a cohort, need to calibrate their own process to be inclusive of input from other members of the community. All high-functioning team members should be articulate about what they do and why so that the information will be accessible to the larger group. Soft skills are the necessary scaffolding that, when embedded within hard skills, allows expert collaborators to work together effectively.

Two things are important to note regarding the skills of social design. First, diversity of hard or expert skills is essential on a team. A mix of skills in business,

social sciences, science, engineering, technology, policy, or any number of relevant disciplines is beneficial, depending on the project. The most effective teams are built with diverse hard skills but common values and soft skills, or power skills.

Social design requires six categories of skills that bridge hard and soft types.

Critical Thinking and Writing: The cornerstone, and the type of analysis that works against ignorance and prejudice, critical thinking is self-directed and self-monitored but aware of established standards of excellence in whatever is being analyzed. It requires thoughtful, cogent communication and writing skills, and it is the basis of unbiased opinions as well as agency. Any teacher will confirm that it's the hardest skill of all to teach.

Creativity, Problem Reframing, and Insight Development:

This is the ability to reimagine, to adapt ideas from one context to another, to make connections that lead to unconsidered possibilities. It requires working with complex systems and reframing questions to uncover root causes. These skills are sometimes also referred to as novel and adaptive thinking or lateral, abductive, or entrepreneurial thinking.

Design Methods: The full design process has a series of component processes within it, including critique, facilitation, qualitative and quantitative research, synthesis, prototyping, game mechanics, making (giving ideas physical form or representation), user experience (UX) design, and communication design (and probably others). While some of these would qualify as hard skills, every aspect of the design process requires the ability to see, listen, internalize an audience's wishes or needs, and create something that incites desire—delighting people with the beauty or functionality of whatever has been created.

Collaboration and Collective Leadership: Recognizing and articulating common goals, leading others, setting strategic

direction, and marshaling resources toward an intended outcome are also skills central to social design. These, too, are skills that can be developed only through practice. They require cultural literacy and sensitivity, communication skills, dialog, and facilitation.

Sensemaking: This is a bit of designer-speak, but it's difficult to explain with other words. Sensemaking is pattern recognition, but more. It's making sense of what the patterns (or lack of them) mean, determining their implications. All good designers have the ability to synthesize, to simplify seemingly chaotic and disparate bits into a form of logic. This skill is the basis of creating, mapping, data analysis and visualization, monitoring, and evaluation.

New Media Literacy: Not only are the language and form of social media unlike those of other types of communication, but also the way communities are engaged and attention is sustained is different. The design of social movements requires community building, network development, and mastery of all the skills required to capture the attention of an online audience. These are the gateway skills to inciting any kind of modern activism. They are a necessary component of social change.

In summary, the social design system is composed of a set of principles that establish the values and priorities necessary for positive change for all involved; a process for collectively determining desired outcomes, strategy, and action; and the skills required for successful implementation.

The stories in the chapters that follow illustrate this system in action. Each highlights one or two principles in order to examine them in detail, but every component of the system can be discovered in all of the cases.



EXPERT SKILLS

Design, business, science, economics, etc.

SKILLS OF THE FUTURE

Critical thinking, collaboration, communication, cross-cultural literacy