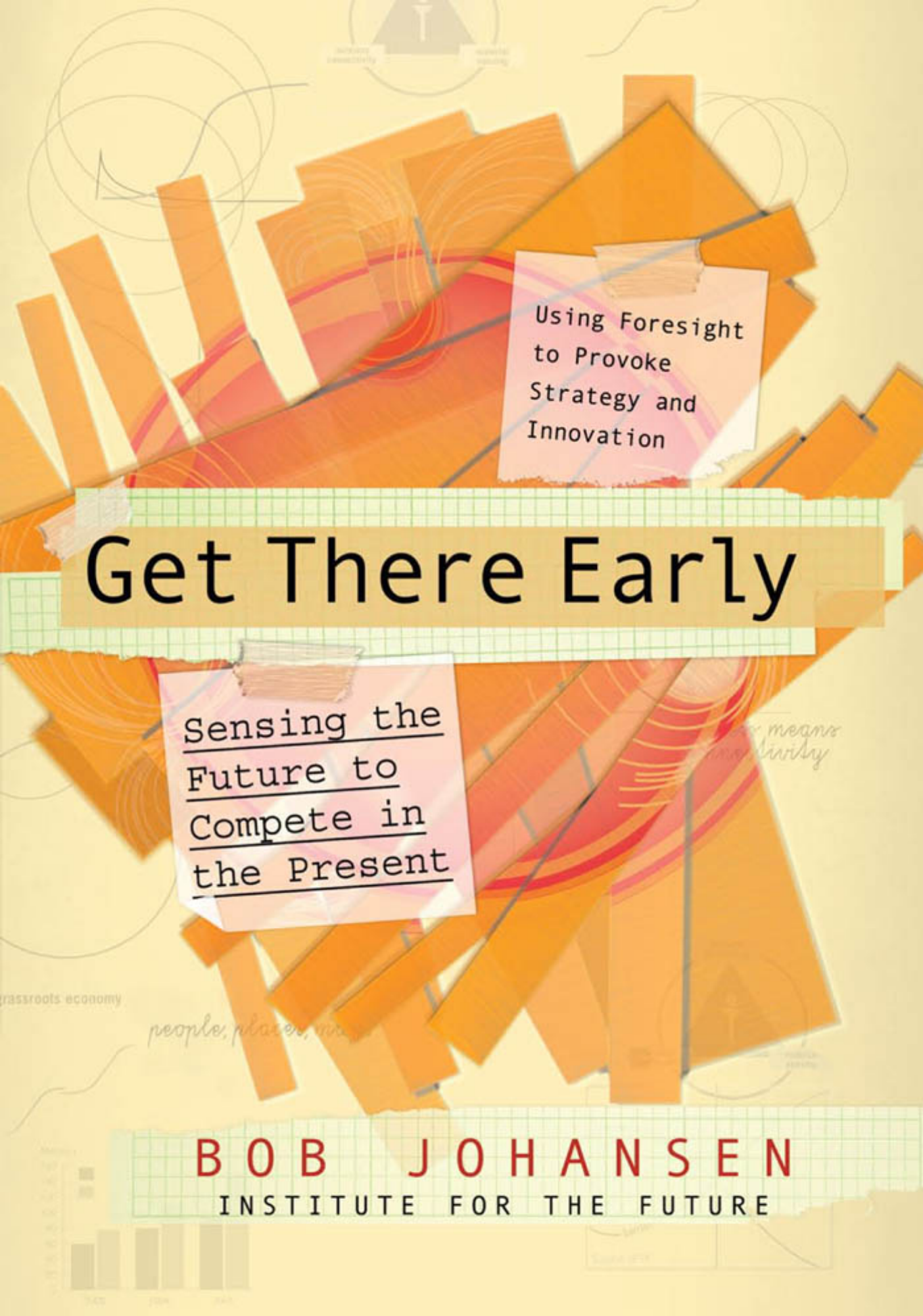
Using Foresight to Provoke Strategy and Innovation
Get There Early
Sensing the Future to Compete in the Present
BOB JOHANSEN
INSTITUTE FOR THE FUTURE

an excerpt from

Get There Early:
Sensing the Future to Compete in the Present

by Bob Johansen

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Contents

Please look inside the book jacket to find the visual forecast map that summarizes the dilemmas described in this book.

List of Figures xi

Foreword *W. Stanton Smith* xiii

Stan Smith, a senior partner at Deloitte & Touche, frames the book with a practical futures perspective: how can the study of the future lead to better decisions in the present? He has already employed the ideas in this book in a variety of settings.

Preface xvii

INTRODUCTION Foresight to Insight to Action 1

The Introduction explains what it means to get there early and how doing so can yield advantages — particularly in uncertain times. This book is organized around the Foresight to Insight to Action Cycle.

PART 1

FORESIGHT Sensing Provocative Futures 13

Foresight stimulates leaders to develop their own visions and get there early. Part 1 begins to unfold the Foresight to Insight to Action Cycle with a focus on the foresight zone.

1 Thinking Ten Years Ahead to Benefit Today 15

Getting there early requires foresight and vision. Chapter 1 gives the context and rationale for ten-year forecasting, as well as a quick overview of how forecasts are done. If you want to go straight to the forecast, skip this chapter.

2 Institute for the Future's Ten-Year Forecast 24

Chapter 2 discusses IFTF's forecast for the next decade, which is visualized in the Forecast Map inside the book jacket. This forecast is the content base for the remainder if the book. It is a specific chunk of foresight that leaders can use to stimulate their visions.

3 The VUCA World: Both Danger and Opportunity 45

The Ten-Year Forecast is loaded with Volatility, Uncertainty, Complexity, and Ambiguity (VUCA). Chapter 3 explores examples of VUCA dangers and opportunities in military, health, education, and business settings.

4 What's Different about Dilemmas? 69

The Ten-Year Forecast is laced with dilemmas, many of which look like problems at first, except that they cannot be solved and they don't go away. Chapter 4 introduces the key differences between problems and dilemmas; it lays the groundwork to win with dilemmas and avoid the temptations of certainty.

PART 2

INSIGHT Sensemaking to Inspire Strategy 85

How can leaders use foresight—whether or not they agree with it—to gain insight and inspire it in others? Part 2 shows how leaders can use the provocation of foresight, with the help of stories, immersion experiences, and workshops, to create a clear, compelling, and productive strategy.

5 It Takes a Story to Understand a Dilemma 87

Stories are necessary to make sense of the future. Although problems can be described with data and solved with analytics, these methods are not enough to reveal the truths and opportunities embedded in dilemmas. Chapter 5 discusses how stories help leaders figure out what's going on and what's possible as well as giving them a way to communicate their strategies with clarity.

6 Immersion: The Best Way to Learn in the VUCA World 101

The more leaders can immerse themselves in provocative environments, the more they are likely to understand their future options for innovation. Chapter 6 introduces a range of immersion experiences, including simulation and alternate reality gaming, for first-person low-risk learning that is ideally suited to a world of great uncertainty.

7 Sensing and Sensemaking 122

To get there early in the emerging future world, leaders need to tune their own skills in sensing and sensemaking. Chapter 7 shows how small-group workshops can provide powerful input, building on participants' ideas and using foresight to provoke strategic insight.

PART 3

ACTION To Get There Early 141

How can leaders create strategy—drawing from foresight and insight—and bring it into action? Part 3 helps leaders create action plans that have both clear direction and flexibility regarding how to get there.

8 From Insight to Action 143

Chapter 8 gives examples of organizations that have used foresight to inspire new strategies and new actions—in the face of dilemmas—and how they made the link between foresight and insight.

9 Flexing and Flexibility 164

In the world of the near future, winning organizations will be flexibly firm. Chapter 9 discusses how to create an agile organization that knows how to sustain a connective web of shared interests to bridge traditional boundaries.

10 Flexible Firms 184

Chapter 10 gives case examples, as well as a near-future vignette, that illustrate how organizations can be simultaneously flexible and firm, to create a culture of readiness and agility.

11 Foresight from Hindsight 200

The best leaders and the best organizations are able to learn from their experiences, especially their failures. Chapter 11 explores ways to derive insight from action, as well as to use action to suggest future explorations.

CONCLUSION Making Your Peace with the VUCA World 215

The Conclusion makes use of stories of personal leadership in the VUCA world, as well as hints and hows, to help leaders put the ideas in this book to work.

Notes 229

Bibliography 237

Acknowledgments 241

About the Author 245

About IFTF 246

Index 247

Foreword

You may be standing in an airport bookstore or perhaps you see this book sitting on a colleague's desk. You pick it up and thumb through it. You may wonder: "Should I buy this book and read it . . . or not?"

My answer is resoundingly YES, . . . you should!

So why is this book important to read? Because it's a guidebook for what's going to be, for the future that is really not optional—the VUCA world of Volatility, Uncertainty, Complexity, and Ambiguity. Because it will give you an entirely new angle on how to approach your job as a business leader in this VUCA world. Bob Johansen has created a book that is exceptional in its originality and clarity of expression as well as in its effective blending of theory and practical examples.

But you may well ask: "Can I really do the things described in this book and make a difference in my business?" From personal experience, I can again say resoundingly, YES. We all need a better way to engage with the dilemmas that are increasingly apparent all around us. This book provides that better way.

At Deloitte & Touche, we have used the ideas in this book, including the Foresight to Insight to Action Cycle, to stimulate new approaches to reaching young workers just entering the workforce. The outputs of our research, study, and analysis are initiatives within our organization that are designed to (1) leverage the strengths of all the generations in our workplace, (2) raise the quality of communication

and understanding among us regardless of generation, and (3) broaden and deepen the pool of talent from which we can successfully recruit externally. Our effort is a research-based practical approach to studying the future; it helps us make better decisions today, decisions that, in turn, will create the conditions for success tomorrow. As a result of applying the concepts in this book, our next-generation initiatives have been able to contribute to Deloitte's considerable commercial success. Bob Johansen, Lyn Jeffery, and their colleagues at Institute for the Future have helped us immeasurably in this task.

The table comparing problem solving and dilemma sensemaking in Chapter 4 is basic training for all of us going forward. In today's marketplace, we have little buffer time between our decisions and their impacts. Mistaking a dilemma for a problem can be costly. It is harder to catch mistakes early when the repercussions of a false step are greater. We must learn to succeed when we are faced with dilemmas, even when we cannot promise or expect clean solutions.

This book (especially Chapter 6) is a great introduction to the value of immersive learning to deal with these uncertainties. Young workers have a lot they can teach us, regardless of generation, about flexibility, collaboration, technology use, and multitasking. The video gaming culture that they grew up in is one that we must learn from in business. Simulations help us learn to be comfortable with ambiguity while still holding to our core values. On this point Bob Johansen does business leaders a service by reminding us that in the VUCA world leaders need to avoid the facile answer or specious clarity that comes at the expense of the truth.

These times are different from the past in degree and intensity of uncertainty. There are risks in being so certain about everything, yet we still must have the strength to make good decisions when decisions need to be made. We all love to have "the answers" at the tip of our tongue, but many of today's "answers" are fundamentally flawed because they don't recognize the complexities all around us. At Deloitte & Touche we use the workshop formats described in Chapter 7 to engage people in the futures context and flesh out issues that we sometimes didn't even know were there.

The ideas in this book have been valuable for me in my private life, as well as in business. About eight years ago I was diagnosed with Parkinson's disease. The world of volatility, uncertainty, complexity, and ambiguity crashed in on me with this diagnosis. I was confronted with dilemmas like the following: How could I continue to work professionally with these new physical challenges? How could I manage the symptoms of this potentially debilitating disease? What new resources might I learn from to come up with my own vision of the kind of life that is possible for me?

I've used the hints and hows from the Conclusion of this book in my own life decisions within my new "normal" that was created by Parkinson's. As I deal with my personal health dilemmas, I've learned to be data based and objective in dealing with my future, yet to remain open to new ways of looking at the data. I've learned to create my own zone of serenity and focus in order to make business contributions at a high level and simultaneously manage this serious medical condition. There is little absolute problem solving for people with Parkinson's; it's mostly about dealing with dilemmas.

In this book, we begin to see inner relationships and make connections that others usually do not see; we learn to "think the unthinkable." On the one hand we may be uncomfortable with the insights that arise from seeing the world differently. However, we need the innovation and creativity that stems from seeing things differently. We understand that we must adapt if we are to survive, much less prosper, in these turbulent times. The right-brain orientation of this book provides a much-needed balance to our overly rational, short-term focus.

So I recommend that you start to manage your own dilemmas by reading and reflecting on the concepts in this book. In this regard Bob Johansen reminds us correctly that we need to understand and analyze the future context as well as the present facts using feelings and reason in equal measure. By acting on the wisdom in this book, you will be getting there early in this emerging world. This very act will help create a new normal.

It has been said that the price of greatness is solitude. So take a bit of time and create some space for solitude (even in the midst of the of-

ten frenetic activities around you), to soak up the great ideas in this book and then apply them in your business and in your life. Decide to take a few minutes to see the world in a profoundly better way that will increase your effectiveness in every role you play in life, but especially in your role as a leader.

The external realities described in this book are not optional and they cannot be avoided. Fortunately, thanks to this book, we do have many options for action. However, the time to act is now by learning to get there early.

Join Bob on this journey and enjoy the adventure!

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Deloitte & Touche USA LLP

Stan Smith was featured in the December 14, 2006, NewsHour with Jim Lehrer *special report on the next-generation workforce by Judy Woodruff.*

Introduction
Foresight to Insight to Action

As the son of a milkman in the small midwestern town of Geneva, Illinois, I was taught to get there early from the start. In the days before refrigeration, my dad got up at midnight to deliver his milk. My first job was getting up with him to help on the milk route, but by that time we had a refrigerated truck and were able to sleep in until 4 a.m. My dad started early, but he got to finish early as well, and he saw things that others did not see. I still remember the freshness of the predawn summer mornings in Illinois when we were up and active before anyone else. Once I was up and out of bed—as long as I was not out late the night before—getting there early had lots of dividends. Getting there early helps you see beyond the problems of the present.

Most organizational cultures today, and most leaders, want to get there just in time, not get there early. Many are willing to settle for getting there "fashionably" late. They focus on quick-fix problems, and they love people who solve those problems rapidly. They hate dealing with the long-term kinds of dilemmas that will characterize the future.

THE VUCA WORLD OF DANGER *AND* OPPORTUNITY

VUCA is an unpleasant acronym, but I have found it surprisingly useful as a way to open conversations about the future. It stands for Volatility, Uncertainty, Complexity, and Ambiguity. It originates from the U.S. Army War College in Carlisle, Pennsylvania—the U.S. Army's graduate

school for generals-to-be—which is now informally calling itself "VUCA University."

Sometimes perceived as the most conservative, the most hierarchical, and the slowest moving of the military branches, the army is transforming itself. Assumptions about logical human behavior are being challenged in the face of extremes—like indiscriminate killing of civilians and children, or suicide bombings. In this kind of world, an increasing number of leadership challenges will be embedded in dilemmas—some of which look like problems.

Many people are so fearful and uncomfortable with uncertainty that they have a desperate need for answers. Some will accept only a simple moral equation as an answer, even if there is no simple moral equation. Many people feel an urgent longing for a sense of control.

As an example, consider how often words like *absolutely* are used in your daily conversations. The word *absolutely* gives the speaker a sense of momentary control and comfort in a world where absolutes are hard to find. It is a satisfying word to say, with two opportunities for emphasis: AB-so-LUTE-ly! Listen for this word in your conversations and consider how it is being used and for what purpose. In my experience, the popularity of the word *absolutely* and other strong declarations (words like *exactly*, *precisely*, *of course*, *no doubt*, *undoubtedly*, *clearly*, *utterly*) has increased significantly in recent years. Absolute language is comforting, and demand for certainty will grow in the future.

We all need some comfort and security in life. In order to thrive, beyond just surviving, people must take on dangers and turn around the uncomfortable VUCA acronym by developing the skills and state of mind that I describe as having Vision, Understanding, Clarity, and Agility, all of which will be explored in this book. We need to call attention to the challenges, but we also need provocative ways to generate believable hope.

How can leaders develop their own abilities to get there early, to understand what's going on, and to succeed in a world of dilemmas—without resorting to a false sense of certainty?

GET THERE EARLY

Get there early has a very specific meaning for me, and it is not just about speed. *Get* is an action word, and *there* implies direction and intent: an outcome, a vision, or a goal. *Get there* suggests strategy to me, a direction and a place where you are going, with at least some idea how to proceed and what you might do when you get there. *Early* means at the right time or at least with good timing. Usually, getting there early means getting there before the masses, in time to gain some advantage. If you get there late, you stand in line, and you might not get in at all. If you get there early, you don't have to rush, and you have time to make a good decision.

For corporations, *get there early* means finding new markets, new customers, and new products ahead of your competitors. Toyota got to the hybrid car market with the Prius at a very good time, with a conscious focus on consumers who wanted to change the world with a purchase decision that evolved into a public statement. The iPod was not the first digital music player, but Apple was the first maker to do it right, with great design, ease of use, and functionality. The iPod demonstrates that it is important to get there early but not necessarily to get there first. Success is more about timing than it is about time. Sony got there early with the Walkman for cassette tapes and CDs, but it got there late for digital music players. Success is transient.

For nonprofits, *get there early* means anticipating the needs of your stakeholders and sensing emerging issues before they become overwhelming or before others who don't agree with your issues have taken a commanding position. In the United States, people with great foresight saw that—by getting there early—they could create massive public national parks that never could have been established once commercial land development took over. California's Coastal Commission, established in the early 1970s, was created much later than most national parks, but it still got there early enough to establish public-oriented coastal guidelines that have resisted commercial real estate forces.

Get there early means seeing a possible future before others see it.

Crest toothpaste, for example, was the first toothpaste to be approved by the American Dental Association. Before the ADA endorsement was granted, Procter & Gamble supported large public research efforts on the effects of fluoride, a key ingredient in Crest. *Get there early* also means being able to act before others have figured out what to do. Based on the positive results from the fluoride research, P&G came up with a novel plan for ADA endorsement of Crest. It doesn't do any good to get there early if you don't do anything.

Within UPS, there is an informal cultural understanding that if you get to a meeting fifteen minutes early, you are on time, so that you show respect for others by not having them wait and also increase the productivity of the meeting. UPS is still a get-there-early company, with a culture that requires on-time behavior. Not surprisingly, UPS is one of the most sophisticated corporations in using foresight to draw out insight as input to strategy. Management uses ten-year scenarios to test their strategies on a regular basis, and they have a corporate strategy group that keeps the get-there-early discipline alive. At UPS, getting there early is not an option; it is built into the company's strategy.

I get to airports two hours before flight time, and I bring my work with me. I find that takes a lot of the stress out of travel, and if something does go wrong, I've got time to recover. Some years ago, my wife and I were going to Australia, where I was to give a talk for an Australian government celebration. I dragged my wife to the airport three hours early, only to discover as we checked in that we did not have proper visas for the trip. In those three hours before flight time, we were able to contact the embassy, get special visa photos, rush in a cab to the nearby home of a local Australian official, get an emergency visa, and still make our flight (just barely). My wife has never complained about getting there early since that trip.

When airports are on alert, the time it takes to go through security is unpredictable. Arriving at the airport two hours early has reduced my travel stress—and I get a lot of work done as well. Time at airports and on planes has become a very important opportunity for uninterrupted work for me. In fact, much of this book was drafted in airports and on planes. At least some of the current discomfort of travel is of our

own making, when we play a fragile system too closely and stress out when it doesn't work as fast as we want it to work.

When I go to baseball games, I like to arrive right when the ballpark opens, about two hours before the first pitch. That way, we get to see batting practice, and we can relax and watch the scene unfold as the crowd arrives. We become part of a relaxed and expectant gathering that is gradually coming to life. We rarely encounter traffic or lines. Our experience at a ballgame is reflective and pastoral, in spite of the fact that—eventually—we are part of a large crowd at our San Francisco ballpark. Getting there early creates a special experience for us. We get a more personal experience of the game. When we get there early, the staff and even the players pay more attention to us. We wander into places where crowds are not allowed. Almost any experience is changed, usually for the better, by getting there early.

In professional baseball, Billy Beane and the Oakland A's got there early with the "moneyball" approach to talent selection, an innovative approach that uses quantitative measures to forecast player performance—and thereby build winning teams.[1] For years, the A's achieved much better performance results with a small budget than did most other teams that spent much more money on players. Now, however, other teams are applying similar measures, meaning the A's must continue to innovate.

Bill Walsh of the San Francisco 49ers got there early with his West Coast Offense in professional football. The 49ers achieved great success during the Bill Walsh era, but the West Coast Offense is now used by many teams as Walsh's former assistant coaches have moved on to lead other teams. The get-there-early advantage is usually only temporary.

What happens when you have a scheduled meeting but some of the participants don't show up on time? (In a cross-cultural world, with different habits, practices, and preferences with regard to time, coordinating our work—especially our global work—will become increasingly complex.) Those who are on time are left to make awkward conversation, while tardy members essentially waste the time of their increasingly anxious colleagues. What about conference calls in which some participants straggle in late to the call? Remember those awkward exchanges? "Who has just joined?" "When should we start?"

How about starting on time, with an agreed-upon-in-advance protocol for appropriate and inappropriate behavior? How much time is wasted each day by waiting for those who arrive late? I have a friend who joined a get-there-early company, and his first boss was an industrial engineer who was particularly punctual. Using the salary levels of all the people in a given meeting of his staff, this leader always had his algorithm ready so that he could he could greet any latecomer with a calculation of the cost of any delay expressed in dollars. This approach is probably too extreme for most of us, but his staff did learn not to be late for meetings.

Organizations that have a get-there-early culture begin meetings on time, even if everyone is not there. Getting there late is just not acceptable. Once a get-there-early or on-time culture is established, most people show up on time—unless truly extenuating circumstances arise. Getting there early respects the time of others, as long as you don't get there too early.

Getting there early is not about rushing to do as many things as possible, running from one action to another. Doing things in a rush is more of a modern American value than getting there early. To me, *get there early* means getting there ahead of the rush so that you have time to reflect, time to consider alternative paths of action, time to think. I get there early so I don't have to rush.

When I was president of Institute for the Future, I set all of the clocks seven minutes fast. Of course, that works only if you run according to the new time, and some of my colleagues didn't get the concept. Setting your clock ahead doesn't make any difference if you still believe only the original setting. At one point, in friendly rebellion, one of my colleagues brought in an additional clock and hung it in our conference room. Under the matching clock that ran seven minutes fast were the words *His Time*, while the sign under the other clock read *Our Time*. Seven minutes ahead of actual time came to be referred to as *Bob Time*, just as it used to be called *Daddy Time* by my kids when they were little.

Get there early can play out in different ways for different people. You need to decide what get there early might mean for you and how

this stance could alter your own leadership. This book will give you lots of options and lots of rationales for why it is good to beat the crowd.

The key is to get out in front—or at least toward the front—of whatever process you are engaged in. In some cases, you'll want to be there ahead of your competition in order to get some kind of edge or advantage. Kleenex, for example, got there early with a good tissue and became the name for an entire category, not just a brand. Most consumers don't say "Do you have a tissue?" Instead, they say "Do you have a Kleenex?"

Getting there early is particularly valuable if you have no idea what's going to happen after you arrive. It allows you to get settled, establish a position, and prepare. If you get there early, you can be centered and ready, while your competitors who arrive late are likely to be disheveled. It helps you think through what might happen, once you are there, and consider alternative strategies with time to think them through. You've got a chance to be ready when others are just rushing in. You can hold the possibilities in your mind while still figuring out what to do and gain a deeper understanding of what was going on before you got there. Getting there early is especially important in times of volatility, uncertainty, complexity, and ambiguity—where figuring out what's going on is not at all easy.

SENSING AND FLEXING

It takes understanding to engage with complexity without becoming mired in it. Leaders must determine when decisions need to be made (sensing) while still allowing for agile course corrections as decisions play out (what I call "flexing"). This determination takes great sensing skills, combined with an ability to make sense out of what is happening and flex your way to success. While judging too soon can be dangerous, deciding too late could be worse.

Part 1 of the book (Chapters 1 through 4) prepares you with a birds-eye view of big-picture driving forces and discontinuities; the map inside the book jacket illustrates a mesh of dilemmas requiring new forms of leadership beyond problem solving. Part 2 (Chapters 5 through 7) hel-

icopters down to make sense out of the present, to draw out strategic insight. Part 3 (Chapters 8 through 11) takes you to the ground level of action, teaching you how to use our approach to win and help others win. The Conclusion offers personal suggestions for applying the ideas in this book to your own leadership challenges.

Get There Early lays out the Institute for the Future's three-step process—foresight to insight to action—that will enable readers to sense, make sense out of, and win when faced with dilemmas. *Get There Early* offers practical methods for sensemaking and flexing, a collection of skills, intuition, content, and style that allow you to:

Develop foresight, to sense and understand the context around the dilemmas that challenge you. The goal is not to predict what's going to happen but to provoke your creativity and prepare you for your biggest challenges, many of which are likely to come in the form of dilemmas. Foresight is the first step in any good strategy process: the search for external forces and environmental factors creates the context for both strategy and innovation. Leaders are always sensing, as well as coaching others, about what's important and what's not. Foresight is, essentially, the ability to sense what could happen before it happens, the ability to identify innovation opportunities. The result is a strategic vision of where you are and where you want to go, and a pretty good idea how you are going to get there early.

Develop your own insight, and stimulate insight for others. Leaders are sense makers, and they help others make sense—often by asking penetrating questions. It turns out that foresight is a particularly good way to stimulate insight, to help make sense out of dilemmas and imagine what you might do next. What innovations are possible, given the dilemmas you are facing? Sensemaking is, essentially, a search for an "Aha!" that contributes to your strategy and seeds innovation. Insight is the core element of any good strategy, but insight is scarce, and it doesn't just happen. Insight is most likely to happen as a result of hard work, open-mindedness toward future possibilities, intuition, and a touch of serendipity. Insight must be communicated clearly so that not only you understand it but so also do those whom you need to engage.

Learn when to act and how to learn from your actions. Decisions still need to be made in the world of dilemmas, but leaders must be tuned to the emergent realities around them in order to decide what to do and when to act. Connection is key, and leaders are always connecting: people to people, ideas to ideas. Many innovations are simply connections that are made for the first time. Leaders need a flexible learn-as-you-go style—since most dilemmas keep changing faces. Strategy leads to decisions and action—in order to make a difference. Even when the action begins, it must be carried out with agility—in order to respond to the inevitable corrections that will be required. Firm action is needed, with an ability to flex.

The Foresight to Insight to Action Cycle was designed to stimulate winning decisions in a world where leaders must concentrate on dilemmas—while others continue to focus on problem solving.[2] A shift in emphasis is necessary: leaders must be both problem solvers and dilemma managers, but the emphasis must be on the latter.

Even though you can't accurately predict in the world of dilemmas, you can tune yourself in to what is going on around you. You can improve your abilities to sense and make sense. You can learn to be flexibly firm. You can prepare for success in the uncertainty zone created by dilemmas. You can learn how to get there early, at least some of the time.

The Foresight to Insight to Action Cycle provides a simple discipline of readiness. Figure I.1 summarizes the Foresight to Insight to Action Cycle graphically.

I have seen the Foresight to Insight to Action Cycle come together many times with great impact. One example sticks out in my mind as particularly inspirational. In 1999, our forecasts suggested that biotech was becoming increasingly important and that it was mixing in very creative ways with information technologies, as we can see much more clearly today. We presented this forecast to the Global Leadership Council of Procter & Gamble. Our foresight for P&G was that biotech would become increasingly important for many P&G products. The top twelve people at P&G looked around the table and realized that none of

1.1 Foresight to Insight to Action Cycle

them had the expertise needed to make good business decisions with regard to biotech. This was an insight, an "Aha!" moment, for P&G.

The action was to create a Biotech Reverse Mentoring Program for the top twelve people at P&G. We located young PhD biotech scientists, all of them at P&G, who were willing to become reverse mentors for their senior executive colleagues—meeting about once a month for one year. The result was a considerable increase in the biotech expertise of the top executives: they did not become scientists, but they certainly knew a lot more about the business implications of this new area of science. At the end of the year, P&G had a biotech strategy, and you can now see the results of this strategy reflected in many P&G products, especially in detergents and hair care. One of the top executives, A. G. Lafley, continued to use his reverse mentor, Len Sauers, as an informal science adviser even after he became CEO of Procter & Gamble.

This example shows the full cycle: the foresight was that biotech

would have major impacts on P&G products; the insight was that the leaders did not have enough background to make good business decisions in this important emerging area of science; and the action was a reverse mentoring program that paired young scientists with the top managers in the company. The follow-up action was a biotech strategy that has now become part of many P&G product strategies.

The Foresight to Insight to Action Cycle can help you get there early, and the greatest value comes from experiencing the whole cycle. Foresight provokes insight, insights spark action, and action reveals lessons that can only be learned in the field, to avoid repeating old mistakes and to suggest new futures to explore. The art of getting there early is achieved through using the cycle again and again.

The dangers of the VUCA world yield to vision, understanding, clarity, and agility, to help leaders resolve the tension between judging too soon and deciding too late.

PART ONE

FORESIGHT

Sensing Provocative Futures

This book recommends that you use ten-year forecasting to improve your foresight and shape your vision for the future in order to get there early and win.

Foresight is derived from listening for, sensing, and characterizing futures that provoke your own creativity. Forecasts—specific chunks of foresight—should be designed to stimulate actions you might take in the present. Foresight can also be derived from experience and observation, when you see something that you believe is a precursor of the future. Vision is your own personal statement, or your organization's statement, of the particular future that you intend to create. Vision is the beginning of strategy.

Even a forecast that never happens is worthwhile if it provokes insight for you. A ten-year horizon provides a futures context for current events and decision options. The best leaders sense the future in order to compete in the present.

Part 1 is focused on foresight as a source of leadership vision. Stimulated by foresight, you can create your own vision—a direction to pursue and an understanding of how to get there early. Part 1 begins to unfold the Foresight to Insight to Action Cycle with more detail on the foresight zone. Foresight is the beginning of the journey.

1 Thinking Ten Years Ahead to Benefit Today

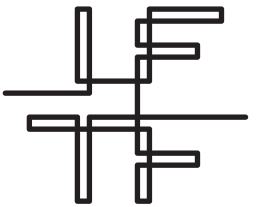
The way you can go
Isn't the real way.
The name you can say
Isn't the real name.
—Lao Tzu, *Tao Te Ching*

Ten-year forecasting provides a unique perspective—a futures context—that helps you create your own vision, for your own organization. Leaders can learn from many different sources of foresight, and this chapter provides a taste of varied approaches. Forecasting helps leaders break out and develop new "ways you can go."

The Institute for the Future's *Ten-Year Forecast* was begun in 1978, when Roy Amara was president of IFTF. The ten-year time horizon was an important choice. Looking ten years ahead, one can see patterns more clearly, even if the details are still unclear.[1] To be most useful, a forecast should be far enough into the future to go beyond an organization's normal planning horizon but not so far ahead that it becomes unbelievable, irrelevant, or too far out. Most of our forecasts focus ten years ahead, but our range for recent forecasts has been from three to fifty years. Our preference is for ten years.

Figure 1.1 shows Institute for the Future's logo, which was created by Jean Hagan. The logo is designed so that when you look at it close up, it is hard to make out the *IFTF*. As you hold it farther away, how-

ever, the IFTF logo becomes clear. Our goal in creating the logo was to symbolize the fact that a ten-year view is easier to make out.



1.1 Institute for the Future Logo

For example, if we look ten years ahead, it is clear that wireless will be everywhere—even in many parts of the underdeveloped world. Cell phone sales are booming already in Latin America, Africa, China, and India. Within ten years, wireless connectivity and sensors will be ubiquitous. It is very difficult to anticipate, however, what will happen in the world of wireless and sensors when you are thinking just one year ahead.

INSPIRATION, NOT PREDICTION

A forecast is a plausible, internally consistent view of what might happen. It is designed to be provocative. At Institute for the Future, we don't use the word *prediction*. A prediction is a statement that something *will* happen. A prediction is almost always wrong. Journalists and others love to highlight predictions that didn't come true, but why are they surprised? If we have learned anything from forecasting, it is that nobody can predict the future. Some people who call themselves futurists are trying to predict the future, but that is more entertainment than research. Fortune-tellers predict the future; forecasters don't.

The link between thinking about the future and predicting the future, however, is built into most people's thinking, so it takes some unlearning for most people to uncouple forecasting from prediction.

A forecast doesn't need to "come true" to be worthwhile. A forecast should provoke new thought: new insights, new possible actions, or new ways of thinking about the present. You don't need to agree with a forecast to find it useful.

Herman Kahn, who invented modern scenario planning at the Rand Corporation and then founded the Hudson Institute, had a unique dis-

claimer in the front of some of his reports that read something like this: "Some of the ideas in this report are deliberately misleading, in order to provoke thought." He didn't tell readers which ideas were deliberately misleading.

By using this disclaimer, Kahn was cleverly opening his readers up, preparing their minds to stay at the perception stage longer. Readers needed time to sense what Kahn's forecast was probing, if only they were patient and open-minded enough to be provoked. He was teaching his readers how to use future scenarios to stimulate their thoughts about possibilities.

One of Kahn's most important books is *Thinking about the Unthinkable*.[2] Forecasting is a way to help us all think in ways we don't normally think. Kahn's unthinkable thinking fueled military strategy. He framed the debate about thermonuclear war in new ways by describing a frightening future in a vivid way that helped policy makers consider the future implications of their action or inaction. The scenarios were designed for the military, but they proved just as useful for war protesters—if they were open-minded enough to read them.

What a wonderful leadership skill: the ability to think the unthinkable and create futures that nobody else can imagine—or to prepare for futures that nobody else thought to protect themselves against.

When I use the Foresight to Insight to Action Cycle with groups, I used to start with a provocative forecast to stretch people so they could think the unthinkable. Foresight is a very interesting place to start, since almost anyone can get excited thinking about the future. It is relatively easy to engage people in a very interesting conversation about the future. It is much harder, however, to link that stimulating conversation to practical things that people can do to make their organization better in the present. You don't want people to look back on a foresight conversation and remember it as stimulating but irrelevant to their present decisions. For this reason, rather than starting with foresight, I now start with preparing the group—before considering what foresight might be most usefully provocative.

PREPARING YOUR MIND

A good leader has a prepared mind—a mind prepared for the always-uncertain future, prepared to think the unthinkable. It means being able to hold multiple realities in your mind simultaneously without jumping to judgment too early.

Preparing your mind is a readiness exercise, to probe where you are as a leader and as an organization, before the Foresight to Insight to Action Cycle begins. Once you know where you are, it is much easier to sense where to start in the vast array of future options that you might consider.

The best sensing is done with an open mind that resists judgment long enough to figure out what is going on—even if what is going on does not fit one's expectations or honor one's values. Often, the most innovative ideas come from engaging with what feels most foreign, from those moments when you have a strange sense in the pit of your stomach that something doesn't fit.

Leaders must resist shutting down or responding instinctively when what is going on does not fit their expectations. The first question to ask when you arrive early in a new situation is, "What's going on here?" If you are having strong reactions, ask yourself, "Why am I reacting this way? Which of my assumptions are being challenged? Do those assumptions deserve to be challenged?"

In business, deep sensing is difficult because we are often rushing for judgment and are rewarded for speed in decision making. Sensing requires a pause, sometimes a long pause. Foresight allows time for a pause. Getting there early implies speed, but you want to get there with enough time to think before you have to act. Sensing requires reflection to get beneath surface reactions and see what is *really* going on, beneath what it *looks like* is going on or what others might like you to believe is going on.

True sensing is hard work because it requires not only watching and listening but also rethinking your own frame for understanding what you are seeing and hearing. Sensing is a discipline of waiting actively—but acting when the timing is right.

Many readers of this book will have taken the Myers-Briggs Type Indicator (MBTI),[3] which is derived from the work of Carl Jung. Jung distinguished between perception and judgment as the basic stages in our ability to engage with the world around us. Jung pointed out that people have differing ways of perceiving and making judgments about life, differing "ways of coming to know." The Myers-Briggs assessment helps us understand our core tendencies: how we tend to perceive and how we tend to make judgments.

Sensing happens first, then judging, but the speed of the shift varies from person to person. The speed with which we move from perception to judgment is especially important when it comes to dealing with dilemmas. Problem solvers cut to the chase right away. Sense makers go slowly at first when dealing with dilemmas so they can go fast later.

Sensing requires the discipline to hold at the perception stage just long enough, before moving to judgment. Foresight encourages you to spend more time sensing, to develop skills in asking questions that matter and resisting answers that don't. The quest is to avoid answers that are premature, answers that reflect only your assumptions—and get to the new insight that might be revealed from more careful consideration.

Roy Amara is the most disciplined futures researcher I have ever met. During his career, Roy emphasized futures research methodology and its importance. But he concluded later in his life that perhaps he had overemphasized methodology. "Futures methodology is less important than I thought," he said at a recent IFTF History Day. This observation came as a surprise to me. He now stresses the importance of thinking through what it is that you want to accomplish in your futures project and then determining what methodology is most appropriate. Preparing your mind may be the most important stage, so that the forecast is most likely to be useful.

APPROACHES TO FORECASTING

Forecasting is a kind of mental fitness practice, comparable to the process of physical fitness. At a gym, for example, you can use tools like weight machines, free weights, a treadmill, a stair-climbing machine, an

exercise bicycle, and an elliptical trainer. A cross-training approach is best, using a mix of approaches. And, of course, you need some coaching to put together an exercise program that works for you. Forecasting is a lot like that. Forecasters (like personal trainers) have a range of tools that they use to enhance the development of foresight and sensory skills.

There are many approaches to forecasting that leaders can use to improve their sensory capabilities. These are the core methodologies that we use at Institute for the Future to develop our forecasts:

- Expert Opinion Aggregation defines who is most proficient in understanding a possible future and provides a systematic process for articulating and synthesizing expert opinions into a forecast.
- Expert Workshops are a specific form of expert opinion aggregation. Expert workshops are typically composed of groups of twelve to twenty-five diverse experts called together as part of a forecasting process.
- Content Synthesis draws together the forecasts of others to create a synthesized view.
- Historical Analogy draws lessons from the past. Even in times of great change many aspects of life do not change. A historical approach explores what is not likely to change and what lessons have been learned so you don't repeat old mistakes.
- Scenarios bring forecasts to life through stories, some of which may include characters and dialogue to help bring people into the daily life of future worlds.
- Survey Research uses questionnaires or interviews to elicit attitudes about the future. Although surveys cannot go deep, they have the advantage of providing access to wide ranges of people through stratified samples (across the categories of populations that are important to you) and random samples to draw wide conclusions. Internet survey research has extended this reach even further.

- Ethnography is derived from the discipline of anthropology and provides a way to explore underlying culture and values—as well as the patterns of how things work or what's going on in a given setting.
- Visualization brings a forecast to life through pictures, human art, digital art, and a variety of other means to help visualize possible futures. The map inside the book jacket is an example of the forecast maps that we do at IFTF.
- Artifacts from the Future are hybrids of archaeology and design that use imagined objects to bring a forecast to life. An artifact from the future is a scenario in physical form.

My purpose here is not to do a detailed analysis of futures research methodology, but I do think it is important to give a taste for how forecasting is done before introducing our forecast. At IFTF, we rely heavily on experts. The challenge in expert opinion aggregation is finding the best experts and then reducing uncertainty in their forecasts—while avoiding false consensus.

The Delphi Technique, created by Olaf Helmer and Norman Dalkey at RAND and expanded when Helmer left RAND to become one of the founders of IFTF, is the best known of the opinion aggregation techniques. Delphi is basically an iterative series of anonymous questionnaire rounds among experts, a process designed to explore the uncertainty space and attempt to reduce it. In the early days of Delphi, either a consensus developed around a future forecast or a distinct divide arose that was defended round after round. At IFTF, we still use derivatives of Delphi, although the term *Delphi* is not used as much anymore. Expert opinion aggregation is typically one of several inputs to our forecasts.

The selection of experts is critical. The best experts at exploring the future are rarely the celebrities of today, since celebrity status often reduces one's humility and openness to alternative futures. The best forecasting experts are those who are either not yet celebrities or don't want to be celebrities. We have learned to be very cautious about celebrity

experts, although occasionally we find celebrities who still have the ability to forecast beyond the core ideas that brought them fame. In my experience, celebrity and good forecasting rarely mix well.

Typically, we develop data books of relevant facts in advance of any forecast, to get our core team and all the experts at a similar starting point—at least with regard to base data relevant to the forecast. A skilled facilitator runs the expert workshops to ensure that all the experts have a voice and that they "play well" together as they explore all aspects of the forecast. The forecast itself, however, is typically done after the expert input, by people who are expert at content synthesis.

Expert workshops can be a useful input to a forecast. For example, IFTF did a project for the government of the United Kingdom to synthesize views on the future of science and technology looking ahead ten, twenty, and fifty years. We used a variety of published and unpublished sources, with a wiki (an online text-based discussion medium) as a gathering ground for the synthesis and expert panels to review the results of the draft synthesis efforts. In this global expert survey we used in-person workshops, interviews, and an online wiki to gather and synthesize expert inputs. The end product was a forecast map that identified driving forces as well as thematic patterns.[4]

Scenarios, both written and in artifact form, bring a forecast to life. Scenarios can be either more or less quantitative. Some scenarios, in fact, are focused on numbers. Other scenarios are more literary, with characters and dialogue, as in the stories written with the novelist Rob Swigart in Chapters 3, 5, and 10. Scenarios can be used to create and expand a forecast, or they can be used to present the results. Scenarios are also used in some organizations to test or explore strategies after they have been created. The Forecast Map, described in Chapter 2, will provide a rich structure from which scenarios can be generated.

Questionnaire results from large samples lend themselves to quantitative analysis, which can provide a greater sense of confidence in a forecast. Surveys about the future, however, run the risk of not going deep enough with the respondents. Most people just don't think about the future very much or very systematically, and asking them questions about it may not yield valid responses. Surveys allow breadth in sampling, but they do not allow depth—and depth is often important in mak-

ing a forecast. Surveys are best as one of several inputs to a forecast. In our forecasting practice, we now tend to use surveys later in the research process, to test hypotheses that were developed using more qualitative methods such as ethnography.

Ethnography, the basic methodology of anthropology, is most useful in forecasting when it is applied to deep understanding of individual people or communities. The key is systematic observation. For example, we use ethnography in our forecasting to explore hopes and fears, as well as to understand underlying processes of change.

Ethnography uses much smaller sample sizes than do surveys, but the research goes deeper. Ethnographic interviewing is a kind of hybrid methodology in which interviews are used but with a deep sense of contextual awareness in addition to an interview question guide. Ethnography can provide human and very interesting accounts that are often expressed in stories. Ethnography yields rich input to a forecast. Ethnography begins not with a hypothesis or a theory but with an open mind and sharp listening skills.

DEVELOPING YOUR APPROACH TO THE FUTURE

Although forecasting methodology is important and useful, it is wise not to take any methodology too seriously. Each leader needs to decide what approach he or she will take toward the future. When the Delphi technique was popular, for example, we got many calls at Institute for the Future from people who said they wanted to do a "Delphi study." When we asked questions about what they wanted and why, it became clear that they had little idea what a Delphi study was; it was just the popular phrase of the day with regard to thinking about the future.

In today's marketplace, *scenario planning* is the phrase that many people use to open a conversation about the future. However, it is best not to frame your forecasting interest in terms of any specific methodology.

There are many futures methodologies that can be considered, depending on what you want to accomplish. This chapter was intended to give you a taste of some basic alternatives. The chapters that follow

show how these approaches can be used in the Foresight to Insight to Action Cycle that is at the core of this book.

2 Institute for the Future's Ten-Year Forecast

> The future is a life seen through the lens of possibility.
> —Kathi Vian, IFTF's Ten-Year Forecast Leader

Chapter 2 draws from Institute for the Future's ongoing forecasts of the global business environment, information technology horizons, organizational shifts, and health trends to provide a base forecast for this book, a way to hold the complexity of this decade of dilemmas in your mind.

Our forecast is a plausible and internally consistent view of future forces affecting the global environment, thinking ten years ahead. What are the external forces that will shape the next ten years, with an emphasis on dilemmas that are important for leaders to consider? Our forecast visualizes a future: the global social and technological context within which leaders, workers, and organizations will be living ten years from now.

Any map, of course, is not the territory. A map is a representation of reality, but it is not reality. In fact, nobody really knows the reality of the future; we are all running on approximations, some better than oth-

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Get There Early:
Sensing the Future to Compete in the Present

by Bob Johansen
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