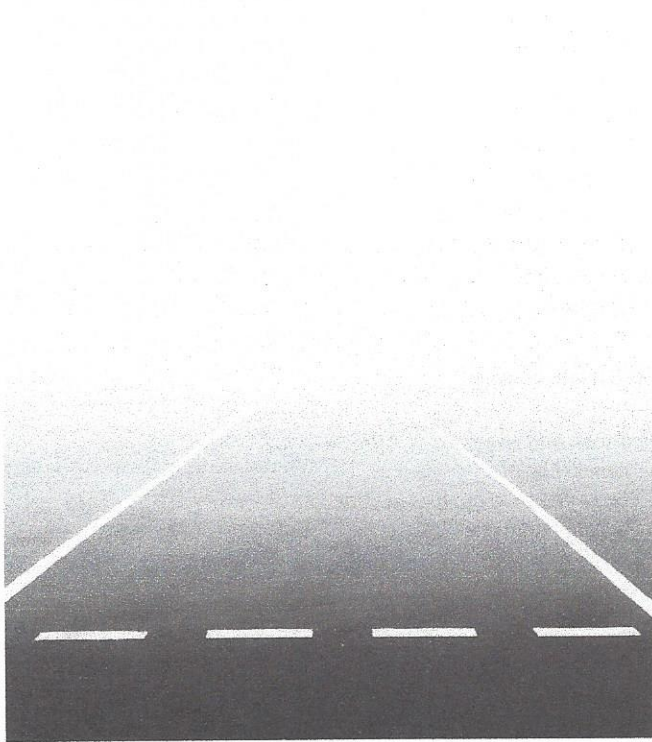




EMBRACING UNCERTAINTY

Quick Takes



1. Managing When the Future Is Unclear

→ by LISA LAI

IT'S ONE OF THE FEW facts in business everyone agrees on: Without a clear and compelling strategy, your business will fail. From MBA programs, to business-book jackets, to the last keynote you attended, you've heard it repeated again and again.

Despite this, we frequently find ourselves managing in situations of strategic ambiguity—when it isn't clear where you're going or how you'll get there. Why does this happen? Market conditions shift rapidly. Customers have more choices than ever.

Resources are constrained. Executives leave, interims are appointed, and searches drag on. The list continues, and even if your company is nimble enough to set strategy effectively at the top, keeping the entire organization strategically aligned is an entirely different challenge. Your company might have a clear strategic imperative, but your unit or team might not.

In my consulting practice, I work with leaders all over the world on strategy and execution, and they shift uncomfortably in their chairs every time I broach this topic. Strategic uncertainty can feel like slogging through mud. Leaders avoid investments. Decisions are deferred. Resources are frozen. Fear, uncertainty, and doubt drive bad behavior and personal agendas. Even so, companies often succeed or fail on the basis of their managers' ability to move the organization forward precisely at times when the path ahead is hazy.

The best managers provide steady, realistic direction and lead with excellence, even when the strategy isn't clear. Push your leaders for clarity, yes. In the meantime, be productive. You can do three things today that will put you in a better position to manage strategic ambiguity: Take

pragmatic action, cultivate emotional steadiness, and tap into others' expertise.

Take Pragmatic Action

I'm a proponent of practical approaches to dealing with uncertainty. Doing something, anything, in support of your company's success makes you and your team feel better than doing nothing.

Get back to basics. Deliver value. First, focus on what you can control. You owe it to the organization and to your team to deliver value every day. What clientele does your team serve today, and what do they expect or need from you? How can you perform better, faster, or smarter to deliver on the promise of excellent service? What matters to the organization's mission or vision? How can your team contribute to that? When uncertainty comes, first and foremost do good work. You'll put the company in the best possible position to navigate new strategic choices.

Place intelligent bets.

What's likely? When the strategy is uncertain, the best managers acknowledge what's unknown, but also look ahead to what is known and what is *likely* to happen. What do you know about the

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■ When the strategy is uncertain, the best managers acknowledge what's unknown, but also look ahead to what is known.

dynamics impacting your company? What options are being discussed? What does your boss think will happen? What can you do today to prepare yourself, your team, and potentially your clients for change? In almost every case, managers can place intelligent bets and start to work toward a future state—even when the complete landscape remains out of focus.

Operate in sprints: Embrace short-term strategies. Once you've focused your team on delivering value and started to explore what's possible, you're prepared to move forward with a discrete set of priorities. Take a note from organizations that use agile methods and create your own strategic sprint. What can you do personally to contribute to strategic clarity for your part of the business? What projects can your team execute in 30, 60, or 90 days that will benefit the organization regardless of which direction the strategy takes? Strategy isn't only the work of senior executives—any work you do to further the company's capabilities and position your team for the future is a great investment. Don't stand still, awaiting the "final" answer on strategy. Move your team and the company forward.

Cultivate Emotional Steadiness

Strategic ambiguity pushes you out of your comfort zone. When there's clear, unwavering direction, you can focus on defined targets and deliver results. When strategies shift, or are hinting toward a shift, it's normal to feel unsettled, and you'll see this in your team too. Here are three steps you can take to help yourself and your team navigate the emotions of strategic ambiguity.

Be proactive. Learn more. One of the reasons I suggest pragmatic action is because doing something concrete helps you move beyond your raw emotions. But there's more to emotional steadiness. Questions arise naturally: How will this impact my group? What if everything we're doing today alters? What if this involves job changes, layoffs, or lost resources? Learn as much as you can so that you're informed, not just reacting to rumor and innuendo. Use your internal network and ask others in the organization for insight, context, and clarity. When you've done the hard work of sense-making, you can anticipate the questions your team will ask and prepare the most effective answers you can.

Acknowledge and navigate emotions. Emotional steadiness requires that you be intentional about the way you show up in the workplace. Your role is to be calm, transparent, and steady, all while painting a vision for the future. Acknowledge your emotions and talk to a peer or your boss if you need to work through them. Play out the worst-case scenario in your mind and then move on to the more likely outcome. Chances are the reality isn't as bad as what you might conjure up when your emotions are heightened. Commit to avoiding stress responses, frustration, rumors, or other nonproductive behavior. Your team members are watching and taking their cues from you.

Keep team communication open. Strategic uncertainty can cause managers to communicate with team members less frequently and less openly. "If I don't have clarity to provide, why not wait?" the thinking goes. But in truth, ambiguous situations require you to communicate even more than normal. To demonstrate emotional steadiness, share your own emotions and acknowledge those of your team in productive ways. Let team members know that what they feel is

OK. But talk with them about your commitment to being emotionally steady even during times of uncertainty. Ask them to do the same and come to you if they are frustrated or concerned. Maintaining open dialogue will keep your team engaged and aligned until a clear direction emerges.

Tap Into Others' Expertise

Leading through periods of uncertainty and change can be isolating for managers. Remind yourself that you are not alone. You have a network of people who have most likely faced similar challenges and you can tap into their experiences. Here are three ways you can use the expertise of others for support.

Imagine your most respected leader's approach. What would that leader do in your situation? How would he or she handle the ambiguity or state of flux? How would he or she view the way you're handling yourself? This exercise can be incredibly powerful in helping you stay calm and emotionally steady, exercise your critical thinking, and take pragmatic action even in the most uncertain circumstances.

■ Learn as much as you can so that you're informed, not just reacting to rumor and innuendo.

Those we most respect have demonstrated traits we admire. Tap into their strengths to inform your own.

Engage other managers.

Managers often believe they need to “be strong” and go it alone to demonstrate managerial confidence and competency. That’s not true. My executive clients reach out to peers and former colleagues regularly for advice, counsel, and emotional support. If someone you know reached out to you to ask for your advice, you’d happily provide support and feel valued as a peer. Your network will feel the same. Start the conversation with “I could really use another point of view” and you’ll be surprised how quickly others engage.

Embrace the wisdom of thought leaders. Your network becomes global when you expand beyond those you know personally to those you can access in today’s digital environment. The greater your understanding of how others think about strategic agility and change leadership, the better you’ll be able to navigate ambiguity in your company. The brightest and most inspiring minds are at your fingertips—read books and articles, listen to podcasts and interviews, and

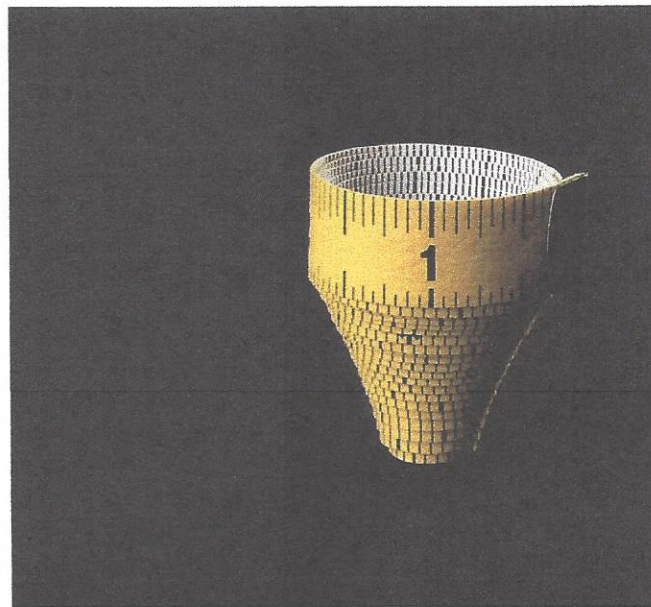
watch instructive videos, webinars, and more to expand your thinking and learn new approaches relevant to your specific situation.

The ability to thrive during periods of strategic uncertainty separates the great managers who go on to become exceptional leaders from the rest. Don’t allow a lack of clarity at your company to cast a shadow over your confidence or performance. Even in the most challenging and ambiguous situations, you put yourself in a position to succeed when you commit to taking pragmatic action while demonstrating emotional steadiness and drawing on the expertise of others.

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2. How to Do Strategic Planning Like a Futurist

→ by AMY WEBB

I RECENTLY HELPED a large industrial manufacturing company with its strategic planning process. With so much uncertainty surrounding autonomous vehicles, 5G, robotics, global trade, and oil markets, the company’s senior leaders needed a set of guiding objectives and strategies linking the company’s future to the present day. Before our work began in earnest, executives had

already decided on a title for the initiative: Strategy 2030.

I was curious to know why they chose that specific year—2030—to benchmark the work. After all, the forces affecting the company were all on different timelines: Changes in global trade were immediate concerns, whereas the field of robotics would have incremental advancements, disappointments, and huge breakthroughs—some-

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times years apart. Had the executives chosen the year 2030 because of something unique to the company happening 20 years from today?

The reason soon became clear. They'd arbitrarily picked the year 2030, a nice round number, because it gave them a sense of control over an uncertain future. It also made for good communication. "Strategy 2030" could be easily understood by employees, customers, and competitors, and it would align with the company's messaging about their hopes for the future. Plus, when companies go through their longer-term planning processes, they often create linear timelines marked by years ending in either 0 or 5. Your brain can easily count in fives, whereas it takes a little extra work to count in fours or sixes.

Nice, linear timelines offer a certain amount of assurance: that events can be preordained, chaos can be contained, and success can be plotted and guaranteed. Of course, the real world we all inhabit is a lot messier. Regulatory actions or natural disasters are wholly outside of your control, while other factors—workforce development, operations, new product ideas—are subject to layers of decisions made throughout your organiza-

tion. As all those variables collide, they shape the horizon.

Chief strategy officers and those responsible for choosing the direction of their organizations are often asked to facilitate "visioning" meetings. This helps teams brainstorm ideas, but it isn't a substitute for critical thinking about the future. Neither are the one-, three-, or five-year strategic plans that have become a staple within most organizations, though they are useful for addressing short-term operational goals. Deep uncertainty merits deep questions, and the answers aren't necessarily tied to a fixed date in the future. Where do you want to have impact? What will it take to achieve success? How will the organization evolve to meet challenges on the horizon? These are the kinds of deep, foundational questions that are best addressed with long-term planning.

Why We Avoid Long-Term Timelines

As a quantitative futurist, my job is to investigate the future using data-driven models. My observation is that leadership teams get caught in a cycle of addressing long-term risk with rigid short-term solutions, and in the process, they invite entropy. Teams

that rely on traditional linear timelines get caught in a cycle of tactical responses to what feels like constant change being foisted upon them from outside forces. Over time, those tactical responses—which take significant internal alignment and effort—drain the organization's resources and make them vulnerable to disruption.

For example, in 2001 I led a meeting with some U.S. newspaper executives to forecast the future of the news business. They, too, had already settled on a target year: 2005. This was an industry with visible disruption looming from the tech sector, where the pace of change was staggeringly fast. I already knew the cognitive bias in play (their desired year ended in a 5). But I didn't anticipate the reluctance to plan beyond four years, which to the executives felt like the far future. I was concerned that any strategies we developed to confront future risk and find new opportunities would be only tactical in nature. Tactical actions without a vision of the longer-term future would result in less control over how the whole media ecosystem evolved.

To illustrate this, I pointed the executives to a new Japanese i-Mode phone I'd been using while living in Tokyo.

The proto-smartphone was connected to the internet, allowed me to make purchases, and, importantly, had a camera. I asked what would happen as mobile device components dropped in price—wouldn't there be an explosion in mobile content, digital advertising, and revenue-sharing business models? Anyone would soon be able to post photos and videos to the web, and there was an entire mobile gaming ecosystem on the verge of being born.

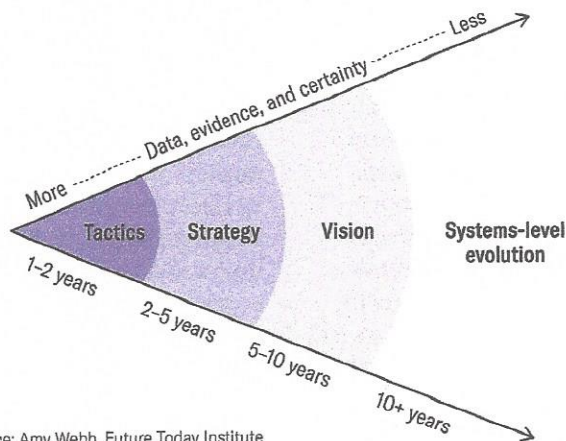
Smartphones fell outside the scope of our 2005 timeline. Although it would be a while before they posed existential risk, there was still time to build and test a long-term business model. Publishers were accustomed to executing on quarter-to-quarter strategies and didn't see the value in planning for a smartphone market that was still many years away.

Since that meeting, newspaper circulation has been on a steady decline. American publishers repeatedly failed to do long-term planning, which could have included radically different revenue models for the digital age. Advertising revenue has fallen from \$65 billion in 2000 to less than \$19 billion industrywide in 2016. In the U.S., 1,800 newspapers closed



A Futurist's Strategic Planning Framework

Instead of arbitrarily assigning goals on a quarterly or yearly timeline, use a cone instead. First identify highly probable events for which there's already data or evidence, and then work outward. Each section of the cone is a strategic approach, and it encompasses the one before it until you reach major systems-level evolution at your company.



Source: Amy Webb, Future Today Institute

between 2004 and 2018. Publishers made a series of short-term tactical responses (website redesigns, mobile apps) without ever developing a clear vision for the industry's evolution. Similar stories have played out across other sectors, including professional services, wired communications carriers, savings and loan banks, and manufacturing.

Use Time "Cones," Not Time "Lines"

Futurists think about time differently, and company

strategists could learn from their approach. For any given uncertainty about the future—whether that's risk, opportunity, or growth—we tend to think in the short term and long term simultaneously. To do this, I use a framework that measures certainty and charts actions, rather than simply marking the passage of time as quarters or years. That's why my timelines aren't actually lines at all—they are cones.

For every foresight project, I build a cone with four distinct categories: (1) tactics,

(2) strategy, (3) vision, and (4) systems-level evolution.

I start by defining the cone's edge, using highly probable events for which there is already data or evidence. The amount of time varies for every project, organization, and industry, but typically 12 to 24 months is a good place to start. Because we can identify trends and probable events (both within a company and external to it), the kind of planning that can be done is *tactical* in nature, and the corresponding actions could include things like redesigning products or identifying and targeting a new customer segment.

Tactical decisions must fit into an organization's strategy. At this point in the cone, we are a little less certain of outcomes, because we're looking at the next 24 months to five years. This area is what's most familiar to strategy officers and their teams: We're describing traditional strategy and the direction the organization will take. Our actions include defining priorities, allocating resources, and making any personnel changes needed.

Lots of organizations get stuck cycling between strategy and tactics. While that process might feel like serious planning for the future, it results in a perpetual

cycle of trying to catch up: to competitors, to new entrants, and to external sources of disruption.

That's why you must be willing to accept more uncertainty as you continually recalibrate your organization's vision for the future. A company's vision cannot include every detail, because there are still many unknowns. Leaders can articulate a strong vision for 10 to 15 years in the future while being open to iterating on the strategy and tactics categories as they encounter new tech trends, global events, social changes, and economic shifts. In the vision category, we formulate actions on the basis of how the executive leadership will pursue research, where it will make investments, and how it will develop the workforce it will someday need.

But the vision for an organization must also fit into the last category: systems-level disruption that could unfold in the future. If executive leaders do not have a strong sense of how their industry must evolve to meet the challenges of new technology, market forces, regulation, and the like, then someone else will be in a position to dictate the terms of your future. The end of the time-horizons cone is very wide, since it can be impossible to calculate the

■ Unlike a traditional timeline with rigid dates and check-ins, the cone always moves forward.

probability of these kinds of events happening. So the actions taken should be describing the direction in which you hope the organization and the industry will evolve.

Unlike a traditional timeline with rigid dates and check-ins, the cone always moves forward. As you gain data and evidence and as you make progress on your actions, the beginning of the cone and your tactical category is always reset in the present day. The result, ideally, is a flexible organization that is positioned to continually iterate and respond to external developments.

Imagining the Future for Golf Carts (or Mini-Gs)

As an example, let's consider how a company that manufactures golf carts could use this approach when considering the future of transportation. We would consider some of the macro forces related to golf carts, such as an expanding elderly population and climate change. We'd also need to connect emerging tech trends that will impact the future of the business, such as autonomous last-mile logistics, computer vision, and AI in the cloud. And we would investigate the work of other companies: Amazon, Google, and startups such as

Nuro are all working on small vehicles that can move packages short distances. What emerges is a future in which golf carts are repurposed as climate-controlled delivery vehicles capable of transporting people, medicine, groceries, office supplies, and pets without a human driver. Let's call them mini-Gs. The golf cart manufacturer probably already has the core competency, the supply chain, and the expertise in building fleets of vehicles, giving it a strategic advantage over the big tech companies and startups. This is an opportunity for a legacy company to take the lead in shaping the evolution of its future.

With a sense of what the future might look like, leaders can address the entire cone simultaneously. There will need to be new regulations governing speed and driving routes. City planners and architects will be useful collaborators in designing new entranceways and paths for mini-Gs. Drugstores like CVS and Walgreens could be early buyers of mini-Gs—offering climate-controlled home delivery of prescriptions could eventually lead to using mini-Gs to collect blood or other diagnostic samples as the technology evolves. Working at the end of the cone, the golf cart manufac-

turer's leaders will determine how the ecosystem forms while they simultaneously develop a vision for what their organization will become.

Working at the front of the cone, executives will incorporate mini-Gs into their strategy. The actions here will take deeper work and more time: setting and recalibrating budgets, reorganizing business units, making new hires, seeking out partners, and so on. They will build in flexibility to make new choices as events unfold over the next three to five years. While the mini-Gs future I described above may still be far-off, this will position the company to pursue tactical research today: on the macro forces related to golf carts, emerging tech trends, and all the companies, startups, and R&D labs currently working on various components of the ecosystem, such as last-mile logistics and object recognition. Over the next year, the golf cart manufacturer will bring together a cross-functional team of employees and experts; perform an internal audit of capabilities; facilitate learning sessions and workshops; assess current and potential vendors; and stay abreast of new developments coming from unusual places. What employees and

their teams learn from taking tactical actions will be used to inform strategy, which will continually shape the vision of the company and position it to lead the golf cart industry into the future.

Dozens of organizations around the world use the time-horizons cone in the face of deep uncertainty. Because their leaders are thinking exponentially and taking ongoing incremental actions, they are in a position to shape their futures. It might go against your biological wiring, but give yourself and your team the opportunity to think about the short term and long term simultaneously. Resist the urge to pick a year ending in a 0 or 5 to start your strategic-planning process. You will undoubtedly find that your organization becomes more resilient in the wake of ongoing disruption.

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3. You Can't Make Good Predictions Without Embracing Uncertainty

→ by PETER HOPPER and CARL SPETZLER

MUCH OF THE FAILURE of long-term strategizing arises not from its difficulty but from confusion about how to do it. When hard strategic choices loom, executives ask their experts what the future will look like. The experts—middle management, analysts, engineers, consultants—aren't asked to provide a comprehensive view of possible futures and their probability of occurring. They're asked for a description of a single future or several possible futures for consideration.

With exquisite mock precision, they describe these highly specific futures, shrugging off uncertainty on the grounds that the future is ultimately unknowable. Risk is relegated to a qualitative discussion of potential problems, often resulting in an upward adjustment of the discount rate to compensate for the lack of accounting for uncertainty in the overall analysis.

But the uncertainty of the future is no excuse for less rigor or clarity. A consistent, quantitative perspective on uncertainty not only builds the best foundation for making good management decisions but also provides a platform for developing a shared understanding of trade-offs, bridging dis-

agreement and establishing accountability.

Consider a multinational consumer-brand company that was trying to rebalance its sourcing locations for the coming decade. It had long outsourced most of its manufacturing to a limited number of Asian countries, with many factories in each. But with sales volume expected to double in 10 years, it was considering whether to outsource to additional countries to spread its risks more evenly.

Those risks were many. The environmental and labor practices of subcontractors could damage the brand. Supply could be disrupted by natural disasters, political unrest, labor strife, or lack of infrastructure investment. And for the highly visible brand companies—companies in industries like footwear, luxury goods, and consumer electronics—reliability of supply is paramount. Their margins on products far exceed manufacturing costs, and empty store shelves mean huge lost opportunities.

But after almost a year of discussion, the company's leadership team was no closer to a decision than when it started. Each of several courses of action had passionate advocates: (1) Keep manufacturing in the

■ The uncertainty of the future is no excuse for less rigor or clarity.

current locations and expand capacity there; (2) plan to contract for a significant percentage of future manufacturing in a somewhat less politically stable country (which we will call Country A); (3) return to another Asian country (Country B), where a tentative, previous outsourcing operation had stalled; or (4) press ahead with automation experiments that would make some reshoring feasible.

Frustrated by their inability to resolve their differences, they turned to a rigorous probabilistic approach to decision-making that has its origins in the centuries-old work of the mathematicians Daniel Bernoulli and Pierre-Simon Laplace, who first tried to figure out how to make rational decisions in the face of uncertainty, as in games of chance.

The team began by bringing in internal and external experts to provide their perspectives on the risks and uncertainties surrounding each sourcing option. Those risks and uncertainties were then assessed and converted into a range of probabilities for each.

For example, they concluded that a strike at factories in one of the existing locations had a 90% probability of lasting at least two days,

a 50% probability of being resolved within two weeks, and a less than 10% chance of requiring more than four weeks for resolution. They also assigned probabilities to the likely strike frequency across all the factories in each country.

This probabilistic assessment approach was used for every aspect of the sources of value and the sources of uncertainty: the threat of earthquakes, flooding, civil unrest, the possible introduction of the Trans-Pacific Partnership trade agreement, and much more. In each case, the team related the uncertainty to the scale of the supply-chain disruption it caused, creating a quantified assessment of the uncertainty involved. The team then quantified each of those probabilities in terms of the scale of supply-chain disruption they would cause.

What emerged was a clear and quantified picture of the likely consequences for each alternative, including how exposure to new locations could increase or decrease supply security, how new partners might expose the company to additional brand risk, and where the greatest geopolitical and environmental risk most probably lay.

The team was then able to translate those probabilities

into supply loss or gain and, eventually, into margins. That enabled the team to calculate a range of upside and downside financial potential for each alternative. Initially, they found that entering Countries A and B gave the company a 70% chance of making tens of billions of dollars more than with any other alternative. Further, they determined that they could ramp up fairly quickly in Country B, where they already had a small presence, allowing them to wait a year to see how the political situation played out in Country A. At the same time, they could see how rapidly their work on automation progressed and realized they could revisit the possibility of reshoring when they again took up the question of moving into Country A.

With a carefully quantified range of potential value, the company's leaders were able to break their impasse. They were confident that they now understood and could quantify the many risks and uncertainties, compare the various alternatives, and match the choice to the risk appetite of the company. And clear quantification of likely value and uncertainty allowed a hybrid solution to emerge that otherwise might not have been considered.

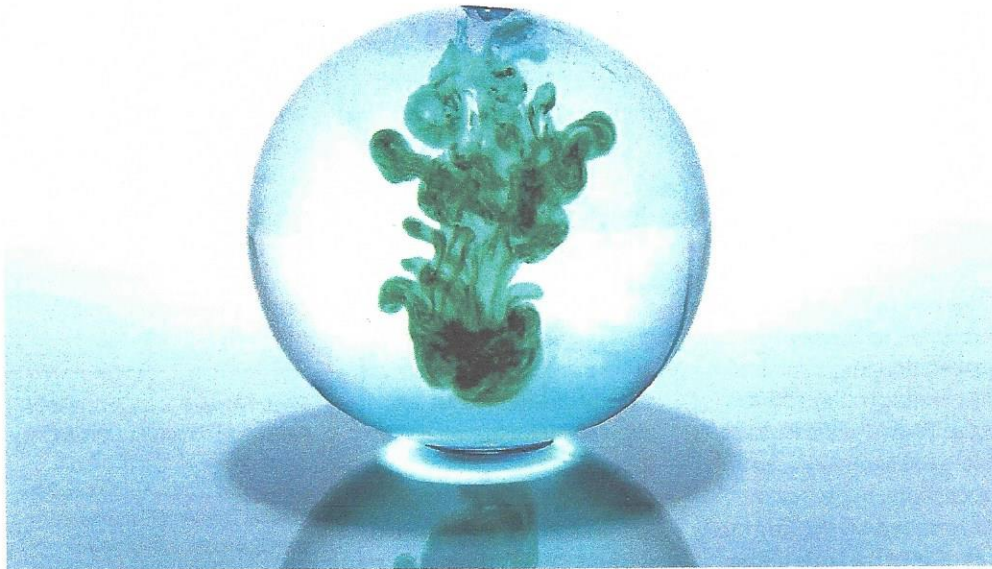
They were not just making a "good enough" decision but the best possible decision they could.

The great irony is that by embracing and quantifying uncertainty, rather than evading it, they were able to achieve much greater clarity and utility in their view of the future.

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4. Predicting the Future

What's really preventing leaders from taking the long view?

→ by ANIA G. WIECKOWSKI

LEADERS HAVE ALWAYS been eager to see into the future. What will delight customers in six months, a year, two decades? What external factors will influence their industries? What technologies will upset them? Uncertainty, complexity, and volatility—not to mention our own cognitive biases—often

foil these attempts to take the long view.

That's why we need to remain vigilant in rationally calculating the future effects of big choices, says science writer Steven Johnson. In *Farsighted: How We Make the Decisions That Matter the Most*, Johnson reminds us that “the ability to make

deliberative, long-term decisions is one of the few truly unique characteristics of *Homo sapiens*”—and we're actually getting better at it.

Take scenario planning. The power of this common tool lies in the discipline with which it forces us to explore uncharted territory. For example, we can counteract the

“fallacy of extrapolation”—a bias that causes us to assume that a current trend will continue into the future—by imagining in detail multiple ways a situation might unfold. Johnson suggests examining at least one model that is particularly optimistic, one that is particularly conservative, and one that is just plain odd. The exercise is not about predicting the future; it's “a rehearsal” for it.

A rule of thumb for predicting is that the more inputs you have, the better. Research by Wharton professor Philip Tetlock shows that people who consider multiple points of view make better predictions than those who hew to one perspective. Johnson concurs, recommending that decision makers cultivate diverse voices to avoid blind spots, using small-group activities like charettes to allow those voices to be heard.

Varied points of view can lead to friction, but that's to be encouraged. In *Imagine It Forward: Courage, Creativity, and the Power of Change*, former GE executive Beth Comstock has a name for outsiders who challenge the team to think differently: sparks. She notes that for corporate incumbents like GE, the problem of predicting the future is compounded by the paralyzing fear of

■ People who consider multiple points of view make better predictions than those who hew to one perspective.

making a wrong move because there's so much to lose. Sparks create the kind of discomfort that jolts people into action.

One such spark was entrepreneur and *The Lean Startup* author Eric Ries, whom Comstock brought in to talk to GE leaders and engineers about new-product development. The existing process depended on making big forecasts about sales and then slowly building a massive product toward that prediction. Comstock wanted to challenge people to think about the future in fresh ways. Ries came from a very different cultural context: Silicon Valley. When he began prodding, the folks at GE admitted that they didn't actually believe the predictions—and realized that they didn't have to predict so far out if they found ways to test ideas in the market quickly.

Fear of forward movement in the face of the unknown is just as prevalent among individuals as it is in firms, and Comstock has a tool for that, too. When her students at Crotonville, GE's institute for management, say they can't do something new because the company won't let them, she literally hands them a permission slip. As interested in creating the future as she is

in predicting it, Comstock suggests that would-be innovators keep a stack of such slips at their desks: "Give yourself permission to imagine a better way," she advises.

Leadership guru Simon Sinek sees our difficulty in taking the long view as a mistake of mindset. In his book *The Infinite Game*, he contrasts activities that have finite rules—like chess—with those that constantly present new challenges—like business. In "infinite games," fixing on a just cause is the only way to outlast existential crises, adapt, and thrive into the future. Much as some parents focus on raising an inquisitive child rather than an obedient one, Sinek urges leaders to think less about endgames and more about new opportunities: Strive to build a customer relationship rather than close a sale; be attentive to the growth of individuals rather than quarterly earnings.

In *On the Future: Prospects for Humanity*, Martin Rees doesn't tell us how we should think about the future; instead he lays out his own predictions. A celebrated cosmologist and astrophysicist, Rees has written many books on popular science. This one examines trends in biotech, AI, the global climate, and spaceflight. In

prognosticating about AI, Rees notes that machines will enable us to make better predictions about everything from which stocks will soar to which diseases will do us in. Of course, they also reveal the overwhelming complexity of our world, as technologist David Weinberger warns in a recent *Wired* article, forcing us to confront the fact that uncertainty isn't going away anytime soon. (Disclosure: I'm editing Weinberger's forthcoming book from Harvard Business Review Press.)

A common thread across these volumes is the importance, and difficulty, of combating climate change. Rees laments the ongoing destruction of our planet, sorting out what we can predict—say, how much our CO₂ emissions will warm the planet—from what we can't—how the associated changes in clouds and water vapor will influence further climate change. Comstock's story of bringing the Ecomagination strategy to life at GE exemplifies the challenges of getting a big organization to tackle global ecological problems. Sinek sees federal legislation to reduce emissions as an act of an infinite mindset. And Johnson opens his book with a critique of the shortsighted decision to fill in Manhattan's

only source of fresh water in the early 19th century.

Johnson maintains that we're much more deliberate in our predictions and decisions today, but I'm not so sure. Leaders seem unable to agree on what to do in the face of a warming planet. These books point to the need for a stronger response to looming challenges like climate change. We must push ourselves to imagine the fast-approaching future, counteract short-termism and other biases clouding our perspective, look for opportunities to innovate, and recognize that, although it may seem impossible to chart a course in an unpredictable world, inaction itself is also a decision. ☺

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