CHAPTER 3

Complexity

> We have entered a period of transition from the world we know toward one we can't yet map.
>
> Ian Bremmer, *Every Nation for Itself*

The word *innovation* can be a black hole. Everyone has an opinion about what it is. You can spend hours, days, even years getting lost inside its constantly morphing layers of meaning.

Search Amazon for books on the subject and you'll find over 60,000 titles. There are books on the other side of innovation, the art of innovation, the ten types of innovation, the myths of innovation, and thousands on some new kind of innovation process.

I'm convinced that, in reality, no one really cares about innovation. What CEOs, management teams, and shareholders really care about is what innovation can generate—growth. That's the whole purpose of innovation—to create sustainable growth. The very nature of capitalism is Darwinian: survival of the fittest. To stay alive, companies must continue to grow.

So, when it comes to innovation, I like to keep things simple and think in terms of growth. *If we change this, or make that thing, do this deal, or launch this program, what kind of* growth *will it create? Incremental* or *exponential? Is this a 10 percent or 10x kind of opportunity? Does* *it have the potential to create slow but predictable growth, or big, fast, unpredictable growth?* This approach cuts straight to the point and saves an amazing number of emails, meetings, calls, Power Point presentations, and consulting fees.

There isn't any magic to this: Replacing the word *innovation* with the word *growth* doesn't make the basic challenge any easier. Creating growth for any business in any industry and in any country, is still *really* hard, because the context for growth is changing dramatically.

Context Is Everything

In chapter 2, we focused on scale, specifically as to how design can help create scale. If we've done our job, all this discussion of design, scale, and systems is starting to make sense conceptually, but no one runs a business in a vacuum based on frameworks, theories, or abstract growth strategies.

If you're a public company, there's nothing conceptual about the pressure of forecasting growth and then meeting analysts' and shareholders' expectations every quarter. If you miss too many times, heads roll all the way down the line.

If you're in a startup, there's nothing conceptual about watching all your funding dry up just when you figure out your next pivot. Unless you get more funding, you're done: The idea that was going to change the world, and all the blood, sweat, and tears that went into it, are gone, just like that.

That's the problem. Your business has a context: Your industry, your customers, your competitors, the economy, and the government all combine to create the context in which your company operates. It's that context that creates the daily grind of creating growth especially difficult.

Now, before we tackle designing for growth in a volatile context, let's acknowledge the obvious: It's always been difficult to launch and sustain a successful company. It's no revelation that the world is complicated. Markets are created. Markets are destroyed. Supply and demand rules. Winners take all. However, there are a few things that are fundamentally different today from doing business ten, twenty, or thirty years ago.

Our world is more complex than ever.

This complexity is making it harder for every business to grow. When most companies talk about getting serious, they generally focus on efficiency. They buckle down; they rebase what's worked in the past. But, in today's world, what used to be called getting back to basics doesn't always work. What used to take discipline now takes a new, different skill set. Marketers used to have to be deft in building brands. Now, they must be experts in *social listening*. Listening and reacting quickly is everything. CEOs used to write their annual letter to the shareholders. Now, they're expected to tweet, blog, and speak directly to an exponentially expanding group of stakeholders. Your management team used to worry about taking costs out of your supply chain and meeting monthly sales targets. They still have to do that, but they also worry about big societal problems like climate change, cyber security, political upheaval, and women's empowerment.

This new complexity is flattening the competitive advantages enjoyed by many companies for decades. As Warren Buffett likes to note, the "moats" that provided protection around century-old companies are drying up quickly. Every multinational looks at one-time industry leaders like Nokia, Sony, and Research in Motion, for fear of having its industry disrupted and its own competitive advantages wiped out.

There's another shift that's made things difficult. It's now easier than ever to be an entrepreneur. Almost anyone, in any part of the world, can start a new business. The barriers to entry for most industries are lower than ever before. This has created a huge global startup community. That sounds great, until you realize that every startup has to worry about the *next* startup. Just look at Facebook. Despite being the world's largest social network, it couldn't rest on its laurels. Rather than try to build competing services, it snapped up Instagram, then WhatsApp, for staggering prices. Every startup is just trying to make it to the other side of profitability while looking in its rear-view mirror.

No one can afford to coast. Every brand, every company, and every industry is ripe for disruption, even total destruction. But the way a company designs can help it adapt.

Before we delve into how that process works, let's explore what we mean by *complexity,* and why it's a good thing for your business. To do that, let's take a quick look at three macrorealities that are making innovation and growth harder for everyone.

Complicated or Complex?

We'd all agree that running even a small business is complicated. You have to worry about competition, profitability, customer relationships, attracting and retaining great people, government regulations, taxes, sourcing, and supply chains.

If you want to grow your business, you'll face even more complications. Instead of having one office or factory, you'll now have several; instead of competing in one market, you'll compete in many. However, it's the issues beyond the company's control—data hacking, social media's influence on your brand, economic conditions in faraway places, the disruptions wrought by extreme weather—that make growing a business not just complicated, but complex.

Are these more word games? You say *tomato,* and I say *tomahto*? Let's make sure we're clear on the meaning of the two words before we go any further.

When something is complicated, it's difficult to understand. When something is complex, it has many different connected parts.

When something is complicated, it's often frustrating to try to make sense of it. Keeping up with local tax laws; sorting through state, local, and national regulations for your industry; figuring out how to manage healthcare for your employees; planning the right balance of traditional and social media in your marketing plan; can all be complicated.

When a topic is complex, it's something that has many different and connected parts. We often use the terms interchangeably but they are quite different. Something can be complex, but still easy to understand. While complicated is almost invariably bad, complexity can be a good thing.

Consider this: Today's smart phone reportedly has more processing power than the computers in the first rocket that carried a man to the moon. I haven't yet found the app to launch a trip to Mars but, like you, I use my phone to call, Skype, text, email, search, listen to music, watch a movie, play a game, take a photo, check the weather, read a book, order car service, find a restaurant, and manage my bank accounts. That requires an incredible amount of complexity. Compare that with my first mobile phone, circa 1995. I bought a Motorola StarTAC flip phone with a three-year plan. It was a model of simplicity since it could only do one thing: Make calls. Now, I not only love my phone's complexity, I've come to depend on it.

Being complicated—confusing, difficult to understand—is never a good thing, but complexity is just the reality of today's world. This difference may seem small, but it's important to understand when it comes to design.

Sometimes, More Is More

Design can make complicated things simpler. You don't have to be a professional designer to get this; it's easy to recognize the difference between good and bad design.

Most of the time, using the approach to design that we discussed in chapter 2—simplifying, standardizing, and integrating—makes complicated things easier to understand, easier to make, and easier to do.

Less choice creates more control and more consistency. It's design's oldest adage: Less is more, right? Not always. What about those times when more means more?

What happens when you actually *want* a lot of choices?

I remember the first time I went online in 1995. At the time, there were only about 100,000 Web sites. Today, there are over 700 million and, in many ways, our lives are better because of that vast, easily accessible trove of information. Sometimes, more *is* more.

This was exactly the issue Coca-Cola faced when it shifted its growth strategy. Let's take a look at how complexity connects to growth from the inside out.

In 2001, when the company's CEO first articulated the new growth strategy to move from a company focused on sparkling beverages to a total beverage company, the decision made a lot of strategic sense.

The beverage industry was exploding; the company's context was expanding. Consumers wanted a *lot* more choices. If you're a beverage company, that's a *very* good thing, and a huge opportunity for growth.

At first, the idea of transitioning into a total beverage company doesn't sound like such a leap. You get it: Coca-Cola used to sell Coke and Diet Coke. Now it wants to sell other beverages. No problem.

But this is different. This is like Nike saying it's going to be a total shoe company, offering everything from its iconic Air Force 1 to stilettos, tap shoes, slippers, and boots. That means taking on a whole new competitive set—from Jimmy Choo to Ugg. This is as if Nike said it intended to be *the* shoe company, offering *any* type of shoe to *anyone* in the world.

Given the Coca-Cola Company's mission "to refresh the world," this shift in strategy seems quite sensible—even logical. It created the soft-drink category, and built one of the world's most valuable brands. It seemed reasonable to expect that it could do the same in new, adjacent categories.

But this shift in strategy created massive complexity.

Attempting to lead in all those different categories represented a seismic shift for the company. As we'll see, a total beverage company must design differently from a single beverage company. In fact, the design approach the company used to create and scale Coca-Cola into the brand that it is today, actually complicated its growth in these other categories. The way the company thought about innovation needed to expand to enable its new growth strategy.

Over the last one hundred years, the company has designed very scalable systems for its sparkling brands. They were perfectly designed to scale. Each piece of the business connects perfectly with the next—

from the sourcing of the ingredients, and the manufacturing and distribution of the products, all the way down to sales and marketing. There are, of course, some nuances in different countries due to regulations and cultural tastes, but the company uses the same basic patterns everywhere in the world to get the same level of quality, profit margin, and market share. This is how it ensures that a Coke is a Coke in Taipei or Tunisia or Tallahassee. People often wonder how the company can pull this off on such a massive scale, but there's no magic in it: the business was simply designed to do this.

But other categories, like juice, coffee, or tea, are very different. Rather than being formula based, they are recipe based. There's a big difference between the two.

Take orange juice, for example. Not many people realize that The Coca-Cola Company is actually the world's biggest juice company. About one out of every six oranges grown globally is used by the company to make orange juice.

Designing a billion-dollar juice brand begins with the supply chain. Acquiring the ingredients for those brands would seem to be a no-brainer: Just buy a *lot* of oranges, bottle the juice, then send it out to the world, just the way it is done with Coca-Cola. If only it were that easy!

Orange juice is surprisingly complex.

To start, no one actually knows exactly what kind of orange supply will be available each year. The company works with the world's largest orange farmers, but even *they* don't know how many or even what kind of oranges their groves will produce each season—it's always a best guess. Like wine or coffee, the taste of each individual orange can vary depending on soil conditions, rain, or ripeness when harvested.

This means the company needs to blend different types of oranges to get the taste and quality it's looking for. In short, Coca-Cola blends its supply to a recipe with each batch, just as a vintner does to produce a consistent taste for his cabernet or chardonnay.

On top of this, when it comes to taste, different people prefer different kinds of orange juice. Some people like their OJ with 100 percent juice (less water, more oranges). Some people like the taste of orange but want a more refreshing version (more water, fewer oranges). Some people want bubbles in their juice, some people don't. Some people like bits of orange in their juice, others don't. Then, there are regional preferences in taste: some countries like their orange juice quite sweet; others prefer it tarter. You get the idea. Each of these variations requires a completely different supply chain, manufacturing process, pricing model, merchandising capability, marketing strategy, and distribution system, for *each country*. All of that multiplied by more than two hundred countries gives you more than new billion dollar brands—it gives you complexity.

The problems don't stop there. There's the ongoing headache of the weather, which is getting more extreme every year. There's the problem of colony collapse in the bee population that pollinates the groves. There's the scourge of *citrus greening*, a bacterial disease spread by tiny insects that has devastated crops throughout Florida.

Then, consider that the peak orange growing season is only about three months long, but demand is twelve months a year. Multiply all those problems across the globe, and you begin to understand why the company needs a different approach to design billion-dollar brands in different categories.

Now, remember the goal: Coca-Cola aspires to be the leader in every category (including all the subcategories) in more than two hundred countries.

To stay competitive, it needed an incredible amount of flexibility and adaptability from grove to shelf, from its supply chain to the way it merchandises its products at the point of sale. Its still (nonsparkling) categories are actually very dynamic and require much more agility across the whole value chain.

The problem was the way Coca-Cola designed: It was accustomed to using design to simplify and standardize—not expand. Its approach to design actually made things more complicated: The way it designed as a company was creating confusion and inhibiting growth.

The company needed a new approach, different from the integrated systems approach we discussed in chapter 2. The approach it had used to grow Coca-Cola for almost one hundred years was based on simplifying and standardizing every element—every *thing* and *behavior*—then integrating them seamlessly to make it easier to scale.

With orange juice, and other recipe-based beverages, it couldn't do that. Try as you might, you simply can't standardize an orange. It needed a much more flexible approach. Its design strategy for those brands and products needed to allow it to adapt very quickly as conditions change, as they invariably do.

Of course, it still needed to keep doing what it had always done with Coca-Cola and its other sparkling brands. But it also needed an approach that was more specific to still beverages. The company's growth depended on it.

In part 2, we'll go into this approach in depth. However, there is one more thing we need to discuss. At this point, you still may be tempted to think that this whole agility thing is something only big companies need to worry about. Deciding to be *the total X company* is not your growth strategy and probably never will be. But what is common to every business—from startups to multinationals—is the tectonic shift happening in the external context of every industry. *No* market, *no* country, *no* industry is immune. Every company's growth today is pegged to how successfully it can remain relevant and adapt to a rapidly changing environment.

Everyone Needs Agility

Let's take a quick look at three new realities that create more complexity for everyone—from the startup that launched yesterday to the century-old multinational. These new realities affect the type of problems that all companies face today, making it harder than ever to grow.

Reality #1: We are surrounded by wicked problems.

Earlier we talked about how complexity affects companies at a high level. But when problems become wicked problems, then complexity goes into overdrive.

The term *wicked problems* originated in the world of social planning to describe problems that can't be solved by mathematical formulas or trial and error. They're often ill-defined, are dependent on a number of often uncontrollable variables, and have no so-called right or optimal solutions.

Wicked problems are highly complex—they have many connected issues with no single solution.

Examples might include such things as political upheaval (a new, unpredictable leader in North Korea), economic turmoil (the Euro zone debt crisis or the slowdown in growth in China), and natural disasters (from earthquakes in Turkey to shifts in weather patterns that cause drought in some areas of a region and floods in others).

Everyone is affected by wicked problems: people, governments, and companies. However, if you're a company, some wicked problems not only disrupt your business, but can fundamentally change your industry, significantly challenging your long-term goals and short-term results.

After a building serving as space for several factories collapsed in Bangladesh in 2013, for example, American and European clothing manufacturers had to rethink their responsibility for factory conditions in the countries in which their garments were manufactured. In 2009, in response to the wicked problem of e-waste (the disposal of massive quantities of outdated consumer electronics like computers, cellphones, and television sets) in developing countries, several large computer manufacturers banned the export of nonworking electronics to those nations. Recently, in response to the growing problem of highway accidents involving mobile phones, four big cell-phone companies joined forces in a million-dollar ad campaign to stop texting while driving.

Big companies are affected by wicked problems but can't solve them; all they can do is use their reach, relationships, and considerable resources to do their best to help chip away at them.

Not all wicked problems are social or related to the environment. The so-called war for talent is a great example. Most startup founders know that high failure rates are often the result of not having the right team. But how do you know exactly *when* to staff up? And when you do decide it's time, how can you get the best talent when every other startup is fighting for the same people? Do you have the *right* incentives? And just *how* flexible is your staffing model?

If you're inside a big company, you must continue to evolve your culture, so that you can retain your current staff but also recruit the next generation. By 2020, half of all workers will be millennials—the most educated and culturally diverse of any generation, who are also notorious job-hoppers who dislike bureaucracy and distrust traditional hierarchies.

Both startups and big companies worry about whether they're evolving their hiring strategies fast enough. How much is enough? Are you building the kind of culture you need for today and tomorrow? Where should you source talent? Should you try new, supposed open models? And what about the education system—who's responsible for ensuring we're training the next generation for the kind of business challenges we see coming?

Ignoring wicked problems is not an option.

Wicked problems are always complex and always confusing. Dealing with them can generate a lot of costs, take up a lot of time, and, if you're not careful, can cause your growth strategy to go sideways. But as much as you might be tempted, they cannot be ignored. They're not going away, and they're beyond our ability to fix permanently.

Like all other multinationals, The Coca-Cola Company is affected by many wicked problems, in different ways, around the world. And, like others, it recognizes that it can't grow its business unless it becomes part of the solution. One problem that's gotten a lot of attention is the wicked problem of obesity, especially in developed countries.

While the growth rate in the percentage of the population considered obese now seems to be stabilizing, it's still unacceptably high. What makes this problem wicked is that it's a result of many connected problems. Research suggests many interrelated issues including more sedentary lifestyles, excessive portion sizes, and even, some scientists speculate, the presence of certain bacteria in our digestive systems.

Governments and NGOs also understand that they too must be part of the solution, but ultimately they can't solve the problem alone either. The Coca-Cola Company is tackling the issue on many different levels, with partnerships around the world.

Still, as the company's CEO, Muhtar Kent, has said, "Obesity is a global societal problem which will take all of us working together. We are committed to being part of the solution, working closely with partners from business, government and civil society."

One of the most global wicked problems that affects Coca-Cola's business and the communities in which it operates is water.

Water is the main ingredient in all of Coca-Cola's beverages, so for the company, it's more than a nice-to-have. It's Coca-Cola's most precious resource.

So, too, with the general population. Healthy watersheds and access to safe water and sanitation enable health, education, security, and economic development for people around the world, but the pressures converging on the world's freshwater supplies are significant. Dramatic population growth, economic development, urbanization, and climate change all combine to stress our shared water resources.

That makes water a wicked problem on many dimensions. There's the issue of scarcity, of quality, of pricing, of policy, of flooding, of climate change, and of infrastructure, to name but a few. These problems are interconnected, and defy easy solutions, not just by companies, but by countries and continents as well.

From population growth to climate change, the pressures on water are increasing exponentially.

When it comes to water, it's easy to see that the company can't grow its business unless it becomes part of the solution. So, in 2010, it outlined an ambitious goal when it comes to water stewardship. Its goal is to be *water-neutral* by 2020—to safely return to nature and to communities an amount of water equivalent to that which it uses in all its beverages and their production by 2020. All of Coca-Cola's projects, since the goal was announced, are designed to connect to help it reach this goal.

As Coca-Cola's CEO told *Forbes Magazine*, there wasn't one "eureka!" moment when the company recognized that sustainability was important to its business strategy. When it first started out, Coca-Cola had the usual warm-and-fuzzy words about sustainability in its corporate responsibility report. There were no metrics to see whether any of this was working. It wasn't connected to all the parts of the business.

"We also didn't have proper alignment with our bottling partners," Kent said. "The first prerequisite of being successful [at The Coca-Cola Company] is that you work as a global system. Second, it's got to be embedded in the business plan. Third, you've got to have the right metrics around it; it's got to be measurable. And then it's got to be beneficial from a financial perspective.

"We have learned one basic lesson," he said, "and that is that unless it is synonymous—business and planet—it doesn't get traction."

To begin resolving those disconnects, the company began linking its growth strategy to its water stewardship goal. As the company's business grows, so does its investment in community water partnerships that help it achieve its 2020 goal and beyond.

To date, Coca-Cola has close to five hundred water projects in development around the world. All of these are designed to connect to create as much impact as possible on the wicked problem of water.

Addressing such challenges often ups the cost of doing business exponentially. Yet, for companies to be successful and grow in today's world, they must play a role in helping to solve the wicked problems to which they are connected.

One of the tools that Coca-Cola uses to visualize wicked problems is called a *mind map*. The company didn't invent this tool, in fact, it's quite common; there are lots of examples online. The specific tool is not important; what's important is finding a way to visualize all of the related issues so that everyone can *see* and understand the complexity.

LESSON LEARNED #5

Make a Mind Map

One of the hardest things for managers at any company to do is to see all the issues related to a problem. The more complex the problem, the more difficult it is. In chapter 1 we said, "Design is about intentionally connecting things to solve problems."

What do you do if you don't know all the things that need to be connected?

You make a mind map. A mind map is a term for a diagram that is intended to help you and everyone on your team see all the related elements and behaviors for any given problem or opportunity. The best mind maps are actually designed together as a group, with each team member building on one another's thoughts to ultimately visualize the interrelated problems.

Mind maps not only help you see all the related issues but they also help to get everyone on the same page, with a common language and collective buy-in.

There's no standard way to make a mind map. You can doodle one on a Post-it note, create one in Power Point, or scribble ideas on a big white board. There are also quite a few apps you can buy that are designed specifically to make mind maps. The value is in the result, not in how you get there.

Step 1: Get everyone in the same room.

Get your core group of stakeholders together (you and whoever else will be working on the project). I like to use a big piece of paper, from a flip-chart pad. I also like to use Post-it notes and Sharpie pens, so I get enough for everyone.

Step 2: Get all the issues on the table.

Brainstorm all of the various issues, concepts, themes, elements, behaviors, regulations, etc. related to the problem you're trying to solve. Ask everyone to write each one of them on a Post-it note. Try to capture the issue in two to three words—as few as possible.

For example, if we're trying to wrap our heads around a wicked problem as complex as water scarcity, many different issues surface, ranging from global to local, economic to social and ethical, to environmental issues.

To keep things moving, I give everyone ten to fifteen minutes or so to capture all the various issues that they feel are important. Next, I ask everyone to put all their Post-its on one of the clean sheets of big paper.

Step 3: Quickly group the related issues.

Then, I ask a couple of people to begin grouping all of the related issues together by moving all of the Post-it notes around until they are in several smaller groups. Don't worry if they are not ideally grouped. Just do it as quickly as you can to try to get to your metalevel groups of related topics. Then, we discuss as a group to see if everyone thinks that we've captured most of the issues. I've found it's best to take a short break at this point.

Step 4: Connect everything.

While people are out of the room, I like to use a clean piece of paper, draw a big circle in the middle with the problem we're focused on (water scarcity, for example), and then draw three or four more circles around your main issue representing the three or four metalevel issues.

Next, move all the Post-its that relate to that topic around it, and draw lines or arrows connecting those issues to the larger one. Most of the issues are actually subsets of others. Again, it's not important to be 100 percent perfect and debate the exact relationships; what's important is just to be able to see how all the issues that the team brainstormed connect to something, and are not isolated issues. The only critical thing is to keep the most important issues nearer the center and the less important ones closer to the edge of your map.

Step 5: Step back and look for patterns.

After you've connected everything, ask the team to look at the map to determine if you've missed anything. If so, add it. Once you feel as though you're finished, use the map to discuss the patterns that you see, the biggest risks, or the aha revelations that always come out of an exercise like this. Your mind map can help you, as a team, prioritize what needs to be solved first, get a better grip on how long this will take, and identify who else needs to be a part of designing the solution.

Key Takeaway: When you're trying to solve a big, complex problem, mind maps can help you visualize and prioritize the issues you must take into account in designing a solution.

Reality #2: We live in an After-Internet world.

> "Everything is changing: you, your family, your education, your neighborhood, your job, your government, your relation to others. And they're changing dramatically. All media work us over completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical and social consequences that they leave no part of us untouched, unaffected, unaltered. The medium is the message."

Marshall McLuhan, the futurist, wrote that in 1967, before the invention of the Internet. The interconnected, media-saturated environment we now live in is one that not even McLuhan could have imagined.

Today's world is open sourced, collaborative, dynamic, two way, cocreated, always on, constantly evolving, shifting, linked, fluid, and changing every second of the day.

I remember the first time I went online. It was 1995. At the time, I was reading *Being Digital*, by Nicolas Negroponte, founder of MIT's famed Media Lab. It reframed the way I thought about the world. Essentially, the book suggests that anything and everything will eventually shift from being made of atoms to bits: One day, everything that can be, will be digitized, then connected. With eBooks, ecommerce, online banking, digitized photography and music, streaming video, and an always-on news cycle, it's evident that we're well on our way. This shift is changing everything.

Some fifteen years later, one of Negroponte's Media Lab successors, entrepreneur, investor, college dropout, and Internet visionary Joi Ito updated Negroponte's predictions with his own forecasts as to where we're heading in what he calls the *After-Internet* (AI) world.

According to Ito, one of the biggest disruptors for established businesses is that the cost of innovation, collaboration, and distribution has decreased significantly. That means that big companies no longer have a monopoly because of their capital resources, factories, or networks. A couple of guys with a big idea in Bangalore can go to Startup Weekend for one hundred dollars, rent a desk in a coworking space for five hundred dollars per month (27,345 rupees), buy some space in Amazon's cloud, and possibly disrupt companies that have huge assets and have been around for decades. This is what an After-Internet world looks like.

In 2013, for example, a seventeen-year-old Australian teenager living in England built a content-shortening app, called *Summly,* in his bedroom, which he promptly sold to Yahoo for a reported thirty million dollars. Now, imagine the next seventeen-year-old with a 3D printer, and you begin to sense the dimensions of the potential upheaval.

What's more, these same young entrepreneurs don't need the permission of an organization to act on their ideas.

For companies to compete they need to adopt the same mindset—living in an after-Internet world reduces competitive advantages many companies have enjoyed in the before-Internet world.

Ito offers nine principles that established businesses need to keep in mind to avoid being rendered obsolete by more nimble competitors.

1. Resilience instead of strength, which means you yield and allow failure, and bounce back instead of trying to resist failure.

2. Pull instead of push. That means you pull the resources from the network as you need them, as opposed to centrally stocking them and controlling them.
3. Take risk instead of focusing on safety.
4. Focus on the system instead of objects.
5. Have good compasses, not maps.
6. Work on practice instead of theory, because sometimes you don't know why it works, but what is important is that it is working, not that you have some theory around it.
7. Practice disobedience instead of compliance. You don't get a Nobel Prize for doing what you are told. Too much of school is about obedience, we should really be celebrating disobedience.
8. It's the crowd, not the experts.
9. Focus on learning instead of education.

While all of these principles have the potential to be disruptive—or instructive—for big companies, the last two principles that Ito articulated are particularly relevant as companies try to connect with their customers.

The mandate to pay attention to the crowd, not the experts, and to focus on learning, not education, has never been more essential.

The crowd, after all, now has the power to build you up, or tear you down. We've all seen what happens when a disgruntled and motivated tweeter marshals her 140 characters in a campaign against a company's products. Or when a galvanized audience takes to Facebook to either promote—or condemn—a product, a company, or an initiative they may or may not like.

Facebook itself saw how an activated citizenry could foil its plans for a strategic move that would have been great for its advertising revenue, but not so great for its users' privacy. In 2012, for example, the company had to repeatedly dial back some of its changes, after users and the federal government objected to invasions of privacy. Airbnb has gotten in trouble with various municipalities over laws prohibiting short-term rentals of apartments or houses.

When we talk about an after-Internet world, we must factor in the social web. Gone are the days when a company could assume that its customers would docilely follow its lead. Now, those same customers want a voice, and are eager to call out brands they like—or revile.

Designing for this new world is an ongoing challenge, given its extreme fluidity and volatility. But, as any Borg will tell you, resistance is futile. Adapt, or suffer the consequences.

Reality #3: Winning is about creating shared value.

All companies want to grow. There's nothing new about that. What is new is the expanding role that companies have in affecting the growth of the communities in which they operate.

Much has been written about the role of companies in the area of sustainability, especially around environmental concerns. However, more and more, in order to create new value, companies must think much more holistically about value creation beyond simply doing the responsible thing in the geographies in which they do business. Growth must be based on a shared understanding of the goals of everyone involved.

We're all connected.

Governments (local and national) need successful companies to create a strong economy. Big companies need small companies to supply them with goods and services. Small companies need skilled and educated people to work for them. People need government to help provide the education and financial resources to get the skills they need to get jobs. Financial well-being leads to physical well-being. Healthy economies mean healthy communities.

As Coca-Cola's CEO Muhtar Kent says, "Truth is, we can scarcely talk about innovation without growth—as strongly connected as these two ideas are. And that's as it should be. After all, growth makes the world go 'round. Everyone needs to grow. Individuals. Families. Communities. Cities. States. Nations. Continents. All of them. And we need all types of growth. Economic growth. Social growth. Intellectual growth. Political growth. Spiritual growth. And on and on. Because growth is, ultimately, the way I believe we will overcome the great challenges of our time."

Truly sustainable companies create not only economic value but also value for the communities in which they operate. Michael Porter and Mark Kramer call this *shared value*.

"Companies must take the lead in bringing business and society back together," they say. "Businesses must reconnect company success with social progress. Shared value is not social responsibility, philanthropy, or even sustainability, but a new way to achieve economic success. It is not on the margin of what companies do, but at the center."

You have to create value in all areas of a company's activities to win—for you and for your suppliers, your customers, your consumers, your community.

Recently, Coca-Cola launched just such an initiative, promoting recycling, in partnership with the American musician and producer will.i.am. In 2008, the former Black Eyed Peas frontman was attending a meeting of the Clinton Global Initiative, the former president's social change foundation, when he heard about the movement to create a world with zero waste. The idea connected. For years, the rapper had been distressed by the amount of trash left behind in the stadiums, arenas, and clubs where he and his group played. "I had brought people together," he said, "but they left behind so much waste."

The sight of all that debris—especially PET packaging—bothered him, but the Clinton event spurred a thought: What if all those plastic bottles could be turned into clothes and bags and shoes that people loved? What if you could turn aluminum cans into bicycles? More important, what if, by wearing or buying such products, you could show you care by what you wear? Would that be enough to get people to take recycling more seriously?

Later that year, he began creating a handcrafted book describing what such a recycling program might look like and, in 2009, he reached out to us to see if we were interested in forging a partnership.

There was an immediate bond. "It captured the hearts and minds of Coke executives," says Bea Perez, the company's vice president and chief sustainability officer. More important, the idea aligned with the company's own goals around zero waste by 2020, and gave it a way to get that message out in a fresh and relevant way.

"Only about thirty percent of Americans recycle," says Perez, a number that reflects both a lack of awareness of the issue and a dearth of convenient places to put recyclable waste products. It was a wicked problem that the company needed help in solving.

A partnership with will.i.am would help with something that was critical in generating interest in recycling: Shift the idea from being the responsible thing to do, to being the *cool* thing to do.

In 2012, during the London Olympics, will.i.am and Coca-Cola launched the lifestyle brand EKOCYCLE with a commercial that combined will.i.am's hit song, "Love," with the message, "the end can be a new start."

EKOCYCLE's Facebook page pointed readers to places where they could find recycling facilities, and launched the brand's first products—Beats headphones by Dr. Dre, which incorporate recycled PET into their manufacturing process, and New Era caps. Later that year, four more companies: Case-Mate, a line of cases for smartphones; Levi's jeans; MCM, a manufacturer of high-end handbags, luggage, and leather goods; and RVCA, a surf/skate fashion brand, signed on.

Designing to Connect

In chapter 1, we said that *design is about intentionally connecting things to solve problems.* If you want to use design to help your company grow, then the question you need to ask is: "Is the way we're designing as a company—our approach to design—flexible enough to handle things like wicked problems? Is the way we're designing maximizing the crowd? Are we designing in a way that enables shared value? If not, why not? And, what if we could?"

These are not easy questions for most companies; they don't fit into the normal operations of the business. There are thorny issues like: Who owns the responsibility of creating shared value in the organization? Which team? Which function? They all do, right? But where is creating shared value in each person's job description? And who can anticipate initiatives like ECOCYCLE in the normal business planning cycle when budgets are allocated for the next year or two?

Design can help. By starting with the *Why*—to design on purpose and be very intentional about the way you do it as a company—you can begin to connect the dots, build synergy, and connect silos.

Design isn't owned by one department, function, or guru.

Nobody *owns* design. Designing is all about connecting and it takes a lot of connecting to create growth in today's world.

And that's the point: To undertake these kinds of initiatives, the way a company designs must enable agility, not just scale. All companies need scale but without agility, they can't create what every business needs even more—*relevance*.

LESSON LEARNED #6

Think Big, Start Small

Imagine that it's day one on your new job, where your mandate is to create a design-driven culture for your company. What do you do first? Unless you're the new CEO, you may have a few big ideas, but without earning a certain level of trust and establishing a track record, it's really hard to do anything very ambitious. So where do you start? Small.

Look for someone (a person, a team, etc.) with a problem and work with them to solve it. In the beginning, this is the only way to get traction. It doesn't really matter much what the project is; you just need a proof point and some momentum.

I remember one of the first teams that reached out to me at Coca-Cola was one of our teams in China, who were trying to launch a brand called *Qoo*. Originally designed in Japan, Qoo is a noncarbonated juice that comes in fruity flavors, and has a cheery, pale-blue mascot who says, "Qoo!" when it takes a sip. ("Qoo" means "Ahh" in

Japanese—what most people say when they drink something that immediately quenches their thirst.)

I hopped a plane to Hong Kong, and joined a workshop to discuss what we could do.

Normally, the group assembled to address a problem like this would include marketers, technical people (flavor scientists, etc), packaging engineers, commercial teams (who figure out the manufacturing and distribution logistics), and customer teams (who determine which of our retailers were the likeliest outlets). This was the first time that design was invited to the table.

It wasn't too long before I figured out that they expected me to talk about branding—a natural assumption. However, I could begin to see the real opportunity for design was to help in connecting all these disparate pieces. We'd have to change the mindset of design from being a way of making stuff look prettier to being a way of connecting all of the teams and activities contributing to the launch. That was the real opportunity.

While the problem of launching a new brand in a different country is always difficult, at the time, I remember feeling as though our work on Qoo was *very* small compared to what we could be doing on Coca-Cola. But, through this experience, I began to form relationships with our teams working in China and get some traction.

By the time the Beijing Olympic Games came around, four years later, we were really able to leverage design in a powerful way. This included sponsoring a national competition with design students to create limited edition aluminum bottles interpreting eight themes from our Coke Side of Life campaign.

This had never been done in China. The program was so successful that the packaging began selling on eBay for over one hundred dollars per bottle. We launched the celebration with a giant party with hundreds of people, including our chairman, the students, and DJs from around the world in the middle of Beijing.

I remember sitting there thinking to myself that four years ago I could have never imagined this happening. And I could draw a straight line back to working on that little brand called Qoo. Ahhhhh.

Key Takeaway: In the beginning, create quick wins and build relationships.