CONNECTED STRATEGY

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CONNECTED STRATEGY

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Building Continuous Customer Relationships for Competitive Advantage

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To my dad, who would have been
the proudest reader
(NS)

To my parents, who taught me more about
business than any school ever could
(CT)

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PROLOGUE

The Magic of Connected Strategy

The practices of entertainment giant Disney illustrate a seismic shift in how firms create competitive advantage through what we term *connected strategy*. Firms with a connected strategy fundamentally change how they interact with their customers and what connections they create among the various players in their ecosystem. At its core, a connected strategy transforms traditional, episodic interactions with customers into connected customer relationships that are characterized by continuous, low-friction, and personalized interactions.

For years, Disney has organized mini-camps for children as part of its cruise operations. Stressed-out parents on a Disney cruise can drop off their kids for a few hours in order to get some private time on board. Disney has always taken its responsibility for the children in its care seriously. Until 2005, this meant stopping camp activities every thirty minutes for roll call, thus creating extra work for the staff and interrupting the fun. In 2005, Disney began using monitors to track their small campers—monitors originally developed in the medical field to keep track of dementia patients who were at risk of wandering off. The children were outfitted with little bracelets that identified them and pinpointed their location within the ship.

This was the starting point for a whole new Disney experience named MagicPlus. With the ability to know the identity and location of every guest, Disney soon asked how else it could use MagicPlus to enhance the guest experience and improve operational efficiency.

The answers that emerged touched on a remarkably broad range of its theme park operations. As part of its meet-and-greet program, Disney characters routinely interact with young guests in the park. Before MagicPlus, later renamed MagicBand, Disney's cast members posing as Mickey Mouse or Captain Jack Sparrow knew little about the children. With the MagicBand, Mickey and the captain not only knew each child's name but were also aware of the family's prior visits to Disney theme parks around the world. If six-year-old Sydney met Mickey Mouse last year in Orlando and this year was at the Anaheim park, Mickey would "remember" the first encounter, making the child's experience truly magical.

Beyond creating enhanced customer experiences, the MagicBand also improved park operations, thus reducing Disney's costs—a truly magical outcome from a business perspective. From tracking food orders to handling guest complaints, from identifying each guest to having access on a tablet to all their prior interactions with cast members, efficiency was greatly improved. Moreover, the MagicBand allowed guests to make reservations at busy attractions for predefined time windows, slashing their wait times. This enabled Disney to direct the stream of visitors and jump-start operations at the beginning of the day, increasing the overall number of visitors that could be handled by a theme park while maintaining a great visitor experience.

Connected strategies unfold in a rapidly changing environment. Given its success, one would imagine that Disney would equip every park with the MagicBand. But this is not the case. When Disney opened its Shanghai Disney Resort, it decided against the move. It wasn't that the Chinese failed to appreciate the magic. Instead, by the time of the park's opening, a more efficient alternative had arrived, and almost every visitor already had this magical technology in his or her pocket: a smartphone. Equipped with the right apps, today's phones offer all the information and access to Disney that the MagicBand had provided.

The common theme of the Disney story and many more case studies in this book is that we are living in a world where new forms of connectivity are transforming the way companies do business. Connected strategies allow you, as an executive, to create superior customer experiences while simultaneously achieving dramatic improvements in operational efficiencies. In short, connected strategies can substantially relax the trade-off that firms have traditionally faced between providing superior customer experiences and lowering costs. Adopting connected strategies allows firms to create a formidable competitive advantage. Not surprisingly, their rapid rise is creating new winners and losers in its wake.

The technologies behind connected strategies are improving at a dizzying speed. The world's estimated three billion smartphones pack the power of supercomputers from only a decade ago. The Internet of Things enables instant communication among systems that couldn't talk to each other before. Wearable health and fitness trackers now rival traditional medical devices in their accuracy. And recommendation systems driven by artificial intelligence deliver insights faster than humans ever could. With all these advancements, magical user experiences are coming to life in many industries. What is fascinating, however, is that the technology per se is usually relegated to a supporting role. The key innovation of connected strategies lies in their revamping of a firm's business model. Consider the following four examples.

Amazon redefined how retailers interact with customers. Until recently, customers were forever making long shopping lists and driving to various stores. Now, they can tell Amazon's Alexa to order food, clothing, or just about anything else, and the products are delivered to the customer's house, sometimes within hours. Beyond Alexa, Amazon also introduced the Dash Button, a small Wi-Fi device that customers can attach to the refrigerator, washing machine, or bathroom vanity and press to reorder bottled water, detergent, toilet paper, and much more.

College textbook publishing is also going through a fundamental transformation. In the old days, students would buy or rent their textbook, read the assigned chapters (or at least intend to do so), and then prepare for their final exam by tackling a set of practice problems at the end of each chapter. Now, McGraw-Hill Higher Education, for example, has abandoned the word *book* and instead aims to sell digital learning experiences. Not only are the books fully digital, they are also smart. As students go through the semester, technology tracks their reading and feeds the data back to the professor and the publisher. When a student is struggling with an assignment, the book redirects the student to the appropriate chapter and potentially offers a short video message on how to handle a similar assignment. Each student thus receives a curated and customized learning experience, rather than a standard textbook, and textbook publishers are moving beyond their traditional role to become tutors as well.

Customers used to interact with Nike once a year to buy running shoes, and that interaction was actually with a shoe retailer, not Nike. Now, customers purchase a wellness system that includes a chip embedded in the shoes, software that analyzes their latest workout, and a social network with other Nike runners for support. Customers interact daily with Nike, allowing the company to transform itself from shoe manufacturer to purveyor of health and fitness services, and to coach customers to achieve their goals.

Millions of consumers have embraced wearable technologies and let devices such as Apple Watch or FitBit track their daily lives. Some extreme users, also known as quantified selves, are measuring every aspect of their bodies, from glucose levels to body weight to nutrition to sleep cycles. When Apple knows more about a patient than her doctor, this has major implications for the health care industry. Many digital delivery systems are integrating this data stream with the patient's electronic medical record. In the old days, patients and doctors would see each other during periodic visits. Now, changes in body weight or blood pressure and medication compliance are reported to the care provider daily, prompting timely action triggered by abnormalities in the data feed. At the cutting edge, firms like Medtronic have gone one step further. Some implanted devices not only track health data and communicate it but are even smart enough to take action automatically when they detect abnormal patterns in clinically relevant variables.

As you might have noticed, there are two common threads to these developments. First, firms are fundamentally changing how they connect with their customers. Rather than having episodic interactions, firms are striving to be connected in a continuous way, providing services and products as the needs of customers arise, sometimes even before customers have become aware of their own needs. These firms create a connected relationship with their customers.

Second, firms not only address a wider range of needs, they do it at lower costs. For most of its business, Amazon doesn't need expensive retail outlets; the customized, artificial intelligence–based tutoring by McGraw-Hill forgoes expensive instructors; the motivation to achieve goals in Nike's system is created by a peer-based network, not personal trainers; and the implanted medical devices that automatically take action also save money by avoiding hospitalizations. The potential of connected strategies is to create customer experiences that feel like magic while improving operational efficiency to enhance financial success.

Given their tremendous potential, connected strategies create great opportunities for you—but also for all of your current and future competitors! Connected strategies will lead to disruption in many industries. At a time when a mobility platform is valued more than some of the biggest car companies in the world, increases in connectivity can often be seen more as a threat than an opportunity. But, in almost any industry, potentially disruptive threats come and go, and at any given moment you might fear disruption from a dozen different new ventures. Which ventures will survive? Which ones are truly disruptive? We hope that the frameworks and tools in this book will not only help you in creating your own connected strategy but also provide you with a new perspective, allowing you to separate technological hype from true strategic challenges.

What is a connected strategy? What tools and frameworks can you use to build one for your organization? How does it help you create a competitive advantage? What are great examples to learn from? Answers to these questions are at the heart of this book.

1

The Connected Strategy Framework

A good way to start understanding connected strategy is to consider the traditional relationship between customers and companies. Traditional interactions start when customers realize they have an unmet need. This need could be the desire to see Mickey Mouse and ride a roller coaster, the dream of mastering financial accounting, or the urge to get into shape before summer arrives. Customers then figure out how they want to fulfill this need. They browse theme parks on Expedia, they look for accounting books at Barnes & Noble, or they consult with friends or the local gym on how to train for a triathlon.

At some point, customers attain a level of knowledge that sparks action to put some money on the table. They book a ticket to Disneyland, they buy an expensive textbook, or they sign up for a weeklong training camp. But there is considerable friction in the traditional transaction: customers spend a significant amount of effort to search, request, and receive the product or service they desire.

Firms sit on the other end of these traditional transactions. Yes, they can use marketing dollars to influence the customer along the journey to place an order, but they have limited connections to that customer.

Their episodic interactions start only once the customer has placed an order, and they end on delivery of the product.

In traditional interactions, firms work hard to provide high-quality products and services as quickly as possible and at a competitive cost. They manage and perfect their marketing and operations within the model of episodic sales, but they are inherently limited by the lack of deep connections with their customers. Traditional episodic interactions between customers and firms usually require customers to invest significant effort in figuring out a solution to their needs, then requesting and receiving the product or service. Moreover, there often exists a gap between what the customer wants and what the firm provides. This gap can be a temporal gap (the customer must wait), or a gap between what the customer really wants and what the firm has to offer.

A firm that is able to move from episodic interactions with its customers to a connected relationship overcomes these shortfalls. Consider again the power of the MagicBand. Disney used to have only a handful of interactions with its visitors, and those happened at well-defined intervals—when they came to the park and bought a ticket, or when they ordered cheeseburgers at the restaurant. Now, sensors track the guests via their MagicBand every step and every second. The MagicBand not only reduces the effort in ordering and receiving cheeseburgers or souvenirs, it tailors the experience by making suggestions to the visitor.

Similarly, McGraw-Hill originally interacted with a reader only when selling a book, and even that connection was delegated to a retailer, similar to the case of Nike. But today, every time the reader looks at the book or tackles a practice problem, a connection is established that allows the publisher to learn about the reader, curate its offering, and coach the student when he or she is stuck. Meanwhile, in health care, the connected strategy moves the doctor-patient relationship from an episodic encounter every few months to a continuous flow of data from the patient to the care team, enabling medical needs to be addressed before they become severe.

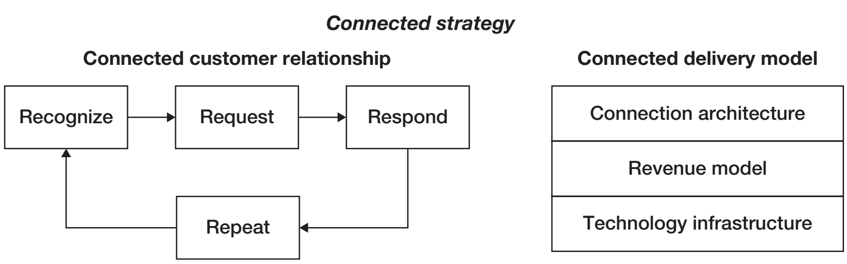
Moving away from episodic interactions toward a connected relationship turns a theme park into a magical experience, transforms a book publisher into a creator of learning journeys, and revamps a hospital system into a proactive care organization. Such deeply connected relationships create more loyalty and higher profits.

Connected strategies don't just happen; they need to be carefully designed. They have two key elements: a *connected customer relationship* and a *connected delivery model*. The connected customer relationship is what delights the customer. The connected delivery model is what allows the firm to create these relationships at low cost. Each connected customer relationship and delivery model is the result of strategic choices along several design dimensions. Let's look at these in figure 1-1.

At the heart of the connected strategy is the connected relationship between customers and a firm. We find it helpful to think about four design dimensions of a connected customer relationship, which we will refer to as the *four Rs* of connected relationships. First, the information that flows from the customer to the firm allows either party to *recognize* a customer need. Once a need is recognized, the customer or firm identifies a product or service that would satisfy this need, leading to a *request* for a desired option. In turn, this triggers the firm to *respond*, creating a customized, low-friction customer experience. By interacting with customers frequently, a firm is able to *repeat* the

FIGURE 1-1

The connected strategy framework



interactions with its customers, allowing it to continually refine the cycle of recognize-request-respond and to convert episodic interactions into a true relationship with its customers.

To create connected customer relationships in a cost-efficient way, a firm needs to create a *connected delivery model*. The delivery model is the result of three key strategic decisions. First, the firm has to decide whom to connect with whom in its ecosystem. What connections need to be created between and among its suppliers, its customers, and itself? We call this the *connection architecture*. Second, the firm has to decide how money will flow through this architecture, allowing it to monetize the value that results from breaking the trade-off between customer happiness and efficiency: it has to design a *revenue model*. Lastly, the firm has to make a range of technological choices that facilitate all the elements of a connected strategy. It has to decide on its *technology infrastructure*.

This book is designed to help you both understand and create connected strategies for your own organization. We have structured the book into three parts. In part I, we show in detail how connected strategies allow you to break your existing trade-off between customer happiness and efficiency. Part II helps you understand how to build connected customer relationships. Finally, in part III, we describe how to build a connected delivery model. Each part concludes with a chapter we call a workshop. In these workshops, we offer exercises that have been tested and refined with executive education audiences. These workshops will help you assess your firm's current activities and create your own connected strategy.

To provide you with a road map of what lies ahead, here is a brief preview.

Part I: The Rewards of Connected Strategies

In chapter 2, "Breaking the Trade-off between Superior Customer Experience and Lowering Costs," we discuss several case studies that illustrate how connected strategies can overcome the trade-off between customer happiness and efficiency—a trade-off that is foundational to most traditional strategic planning frameworks. By tracking guests in a theme park, selling smart books, and taking care of patients' health rather than thinking of them as appointment slots, a connected strategy creates value by breaking the existing trade-offs between the value that a customer receives and the cost that the firm incurs. The reward of a connected strategy is providing more value to the customer at a lower cost to the firm.

We explain how current innovations in the grocery retail sector, including meal-kit delivery services, augmented reality displays, and stores without checkout lines, are increasing both customer satisfaction and efficiencies.

Using a detailed case study of the ride-hailing industry, we then discuss how firms such as Uber and Lyft not only have improved the passenger experience compared with cab companies but are able to do this at much lower fulfillment costs. By connecting passengers with drivers, ride-hailing companies have created a market for driving services. Further, by allowing prices to vary depending on supply and demand, drivers are given an incentive to work when and where it is most valuable. Matching supply with demand in a dynamic world requires new forms of connectivity that extend well beyond a person jumping into the street to flag a cab or calling a grumpy dispatcher to send a taxi. Once that connectivity is put in place, resources can be used much more efficiently.

We finish the chapter by discussing how connected strategies can lead to competitive advantage and by reflecting on the importance of data privacy in the context of connected strategies.

Chapter 3, titled "Workshop 1: Using Connectivity to Provide Superior Customer Experiences at Lower Costs," contains a series of worksheets that will start you on the process of creating a connected strategy for your organization.

Part II: Creating Connected Customer Relationships

In part II of the book, we analyze in depth how you can create a connected relationship with your customers—a relationship in which episodic interactions are replaced by frequent, low-friction, and customized interactions enabled by rich data exchange.

In chapter 4, "Recognize, Request, and Respond: Building Connected Customer Experiences," we investigate the first three design dimensions of a connected relationship. The dimension of *recognize* encapsulates the information flow between the customer and firm that leads to the recognition of a customer need. We discuss various ways in which you can shape this information flow: this flow might be initiated by the customer, or it might be autonomous. Once the information reaches the firm, the firm needs to interpret and convert it (or help the customer to convert it) into a *request* for a desired option. Lastly, the firm needs to *respond* to this request and fulfill the desired option in a low-friction manner. This full interaction between customer and firm creates a connected customer experience. Through our research, we have identified four different types of connected customer experiences. These are as follows:

Respond-to-desire

Curated offering

Coach behavior

Automatic execution

Let's take a look at each, returning to our examples from the prologue. Amazon is a great case of what we call a *respond-to-desire* connected customer experience. Once the customer expresses a need, Amazon responds rapidly and conveniently. At Disney, a key function of the

MagicBand is to create a respond-to-desire experience. When a customer wants to enter a ride, pay for a cheeseburger, or open her hotel room, a swipe with the MagicBand is all that is needed.

The McGraw-Hill textbook example illustrates *curated offering*. Having many interactions with each customer allows the firm to learn about the customer's needs. With that knowledge and trust, the customer is no longer alone in finding solutions. Here, the firm and the customer look for solutions jointly. McGraw-Hill does not just help the student figure out the corporate valuation problem on page 247, but instead detects that the student is still struggling with net present value calculations and asks him to repeat the content on page 35.

Companies that create connected strategies often create more than one connected customer experience. Returning to our Disney example, it's clear that the MagicBand does more than create a respond-to-desire experience. With the MagicBand, the customer can communicate a decision that she no longer wants to take a ride on Magic Mountain. Instead, she tells Disney (or Disney knows from past experience) that she wants to experience an action ride and a yummy meal in the next two hours. Disney then takes this information and creates a personalized itinerary. Moreover, Disney is even able to customize the experience of different rides. For instance, if a visitor has created an avatar in one of Disney's video games, this avatar will appear on the "Wanted" poster that the visitor sees during the Pirates of the Caribbean ride.

We call the third type of connected customer experience *coach behavior*. Firms like Nike try to change the behavior of customers toward what is good, smart, or healthy. Nike does not force you to go running more often, but it can offer to help you achieve your fitness and health goals. Similarly, the virtual tutor in a smart textbook says, "Jeremy, you have not yet completed the assigned readings for this week," just as a wearable device starts vibrating if its owner has not left his office chair for the last few hours.

Connected devices that let health care providers intervene even before an urgent need has arisen and implanted devices that are able to take independent actions are examples of the *automatic execution* connected customer experience. A cardiologist is consulted the moment an arrhythmia is recorded by the heart-rate monitor. A digital photo album is created and sent to the customer based on many shots taken in the theme park, all done without the customer ever noticing a camera. As with many connected strategies, these deep connections can raise privacy issues, as they sit in a gray zone between Big Brother and parental love. We will explore these issues throughout the book. And, just to be clear, we don't see this as the vision for all connected customer experiences, though most of our students would happily permit textbooks to take their exams for them . . .

While these individual customer experiences already create a lot of value, once a firm is able to repeat these interactions, it has the ability to substantially refine the customer experience over time. A firm with a connected strategy is able to transform a series of customer experiences into a connected *relationship* with its customers—a key condition for a firm to create a competitive advantage. This transformation is the topic of chapter 5, "Repeat: Building Customer Relationships to Create Competitive Advantage."

We believe that many connected customer experiences will become table stakes in the future. That is why the repeat dimension is so important. It is through this dimension—the ability of firms to learn from existing interactions in order to shape future interactions—that firms will be able to create a sustainable competitive advantage. The *repeat* dimension helps firms with two forms of learning.

First, at the level of a particular customer, a firm learns how to better match the needs of this customer with the firm's existing products and services. Disney learns that Jing seems to like ice cream more than fries and theater performances more than rides, so it is able to create a more enjoyable itinerary for her. McGraw-Hill learns that Jeremy struggles with compound-interest calculations, and is able to direct his attention to material that covers exactly that weakness. Netflix learns that Venkat likes political satire, and can make more pertinent suggestions to him of what movies he would enjoy.

Second, beyond this customer-specific learning, the firm can engage in population-level learning, allowing it to adjust its existing portfolio of products and services. Disney learns that the general demand for frozen yogurt is increasing, so it can add more stands serving frozen yogurt. McGraw-Hill learns that many students struggle with compound-interest calculations, so it refines its online module on this topic. Netflix observes that many viewers like political dramas, so it licenses additional series in this genre. Moreover, population-level learning may allow a firm to know more about its customers than any of its suppliers do, thereby enabling it to create new products and services. Having deeper customer insight allows McGraw-Hill's content producers to add new educational experiences, and Netflix to move into movie production itself.

Over time, these two levels of learning have another very important effect: firms are able to address more fundamental needs of customers. McGraw-Hill might learn that its customer wants not just to learn financial accounting but in fact to make a career on Wall Street. Nike might find out that a particular runner is interested not just in keeping fit but also in training to run a first marathon. This knowledge can lead to opportunities to create an even wider range of services and to trust relationships between firms and customers that become very hard to break by competitors. To build these trusted relationships, customer data needs to be used in transparent and secure ways, a topic we return to at the end of chapter 5.

Chapter 6, "Workshop 2: Building Connected Customer Relationships," concludes part II of the book by guiding you through a series of exercises that will assist you in creating connected customer relationships.

Part III: Creating Connected Delivery Models

Once you have an idea of the type of connected relationship you want to design for your customers, the question is how to implement this

HOW THIS BOOK CAME TO BE

At the Wharton School, both of us teach in the MBA and executive education programs, and we are codirectors of the Mack Institute for Innovation Management. In the last few years, as new and existing firms disrupted their industries by fundamentally changing how they connect with their customers, we have begun to think about the principles underlying their success. At the same time, more and more managers have come to Wharton Executive Education to learn how to create opportunities for their own businesses using these principles. As a result, we set out both to help managers navigate the world of the Internet of Things, the sharing economy, platform strategies, deep learning, fintech (financial technology), and so on, and to provide them with a tool kit to create connected strategies for their own organizations. Our thinking was sharpened and refined through hundreds of sessions with executives and MBA students. The stories they shared of their own experiences and challenges were essential feedback as we developed the framework we now call connected

relationship in a cost-effective way. You need to create a connected delivery model. These models consist of three parts, which form the subjects of the next three chapters.

In chapter 7, "Designing Connection Architectures," we lay out different ways in which firms can reshape the network of connections among the various players in their ecosystems. Ride-hailing firms such as Uber and Lyft have created connections between previously unconnected parties: individuals with cars and individuals looking for a ride. Such a configuration of the value chain has its advantages, but there are many alternatives. In the world of mobility, Daimler has decided to create its own car-sharing service (Car2Go), forming a direct strategy. The book you hold in your hands (or read on the screen) is the result.

As in any research, we have stood on the shoulders of giants. We have greatly benefited from the broad-ranging research by Michael E. Porter, who has investigated the impact of the internet and new technologies on strategy for a long time. The work by Adam M. Brandenburger, Harborne W. Stuart Jr., and Barry J. Nalebuff had an important influence on our discussion of value and willingness-to-pay in chapter 2, while the customer journey we discuss in chapter 4 has its intellectual foundation in the work by Ian C. McMillan and Rita Gunther McGrath. The insightful work by Andrew McAfee and Erik Brynjolfsson on the impact of new technologies on firms and society has always been stimulating for us. Finally, we have been inspired by our friends, colleagues, and coauthors David Asch and Kevin Volpp, whose pioneering work on hovering over patients while outside the hospital has influenced our thinking on connected customer relationships. Obviously, many others have influenced our thinking and work. For readers who would like to dive deeper into the related academic and applied literature, we have compiled a detailed sources section at the end of the book.

connection between a manufacturer and customers. In contrast, Zipcar, another car-sharing operation, has connections to both car manufacturers and renters, as it has to purchase cars before it can rent them out. Finally, ride-sharing service BlaBlaCar operates a peer-to-peer network of drivers who offer each other rides whenever an empty seat is available.

When implementing a connected strategy, you need to decide how much of the customer experience your firm will generate internally and how much you will delegate to other partners in the ecosystem. Moreover, you may have to create new connections between players in your ecosystem. Chapter 7 provides guidance on these decisions. As

CONNECTED STRATEGY VERSUS PLATFORM STRATEGY

The last couple of years have witnessed an enormous success of so-called platform strategies. Connected strategies are different from platform strategies; in fact, you can create value with connected strategies without being a platform.

Platform businesses are not directly involved in serving customers by providing them with goods or services. Instead, their focus is on connecting the producers and customers of such products or services. For example, Uber does not own cars. It connects drivers and their cars with passengers who want a ride. Apple's app store primarily does not sell Apple software. It connects app developers and their software with customers who want to use it. Rather than owning real estate, Airbnb focuses on connecting folks who have empty rooms, apartments, or houses with travelers in need.

A platform really serves two sets of customers. First are those who provide the products or services that are transacted on the platform, be it app developers, drivers, or landlords. And second are those who consume those products or services, such as owners of smartphones, passengers, and travelers. Platform businesses need to appeal to both sets, which is why they are often called two-sided markets. Success is typically achieved by providing a platform for payment, trust building, and dispute resolution and by providing liquidity to the market, making sure there are enough customers to make it worth the providers' effort to join the platform and vice versa.

Though platforms crucially depend on connectivity and are an important design element of our connected strategy framework, they differ along the following important dimensions:

- Platforms are a particular type of what we call connection architecture. Connected strategy, however, also involves creating a connected customer relationship. For instance, Disney has created strongly connected relationships with its customers, but most of us would not refer to Disney as a platform.

- With the success (and hype) around platforms, the term has unfortunately become rather diffuse and is applied to many different models. As we will see in chapter 5, *platform* is really an umbrella term for several different connection architectures. When Amazon, a platform company, sells through its own warehouses, billions of dollars of fixed assets in real estate, buildings, and logistics are involved. When Amazon facilitates a sale through its Marketplace platform, none of these assets is involved. These are very different business models! Similarly, while Airbnb and Facebook are both platforms, one is connecting customers to individuals who serve as suppliers (of accommodation), whereas the other connects individuals who do not engage in a business transaction. Again, these are very different connection architectures that will require, for instance, very different revenue models.
- On most platforms, the relationship between customers and providers is primarily a transactional one, and the revenue model of the platform is to take a cut from these transactions. In contrast, the ultimate goal of connected strategies is to transform episodic transactions into long-term customer relationships precisely to avoid transactional pricing.

In sum, platforms and platform strategies are related to connected strategies and also can be an element of a connected strategy. Yet connectivity allows for many other forms of value creation than the formation of two-sided markets, and it is the aim of a connected strategy to take advantage of them.

we will see, there are five common connection architectures that are used across industries:

Connected producer

Connected retailer

Connected market maker

Crowd orchestrator

Peer-to-peer network creator

In chapter 7, we will describe each of these connection architectures in detail. By recognizing these, you can make the right choices for your business.

We finish the chapter by introducing the connected strategy matrix. We have found this matrix to be a very valuable framework for systematically cataloging the various activities of your competitors in your industry, as well as an innovation tool to create new ideas for your own connected strategy.

Chapter 8, "Revenue Models for Connected Strategies," adds the second design consideration for your connected delivery model: the revenue model. Some connected strategies can rely on traditional revenue models. Disney, in its theme park division, is still making most of its money from admission tickets, food, merchandise, and fees for special experiences inside the park. Contrast this with Niantic and Nintendo, two companies that also produce amazing experiences centered on fictitious characters. With Pokémon Go, the partners have leveraged augmented reality to create a technology platform that turns any place into a virtual theme park. You can play it anywhere, anytime, and you can play it for free, together with its other sixty-five million active users. Niantic creates revenues through in-app purchases that enhance the game and through sponsorships by firms that create desirable locations for the game (e.g., Starbucks and McDonald's).

Technological advances are often what make connected strategies economically feasible. Of course, everyone would like to have personalized, on-demand services that fulfill the most fundamental needs. But how can firms offer such customized services at affordable prices? Vast improvements along many dimensions, from data gathering, data transmission, and data storage to data analysis, logistics, and manufacturing, have made connected strategies a possibility. In chapter 9, "Technology Infrastructure for Connected Strategies," we will help you sift through these advances. By coming back to the connected relationships that you have designed in part II, we can identify key technologies and systematically ask which of these technologies will enable you to further advance your connected strategy.

Finally, chapter 10, "Workshop 3: Building Your Connected Delivery Model," presents a series of exercises and tools that will allow you not only to build your own connected strategy but also to get a better understanding of what is happening around you in your industry.

The concepts just introduced allow us now to formally define a connected strategy:

> *A firm's connected strategy is a set of operational and technological choices that fundamentally changes*

- how the firm connects to its customers by implementing the recognize-request-respond-repeat loop, which transforms episodic interactions into continuous relationships with low friction and high degree of customization, and
- what connections the firm creates among the various players in its ecosystem through the type of connection architecture it chooses and the subsequent economic value captured through a revenue model.

BUSINESS-TO-BUSINESS CONNECTED STRATEGIES

Connected strategies are arising in both business-to-consumer and business-to-business settings. Consider Rolls-Royce's transition from a simple seller of aircraft engines to a much broader service provider enabled by deeper connectivity. Today's aircraft engines are packed with sensors that generate gigabytes of data. This data allows Rolls-Royce to have a precise understanding at the level of individual parts within an engine. While previously parts such as a fuel pump would be replaced on a fixed schedule, now Rolls-Royce can replace pumps earlier or later depending on the state of the pump. This creates significant cost savings either by avoiding engine problems and subsequent flight delays (if a pump was previously replaced too late) or by being able to use a pump longer than normally. The ability to deliver preventative maintenance has allowed Rolls-Royce to change its revenue model from selling engines to selling flying hours, aligning incentives between itself and its customers. Moreover, when engines are decommissioned and returned, Rolls-Royce knows the exact performance profile of each part and is able to recover 50 percent of the materials to remanufacture them for use as new components, reducing manufacturing costs. Being able to aggregate data across a customer's fleet allows Rolls-Royce to gain further insights. For instance, a clean engine burns less fuel, but washing engines is costly. Using fleet-level data, Rolls-Royce is able to determine the optimum time for each engine in a fleet to get washed. Finally, by adding additional data sources such as technical logs, flight plans, forecasts, and actual weather data, Rolls-Royce is able to provide insights to its customers for how to increase fuel efficiency—for instance, through improved flight schedules. Through its connected strategy, Rolls-Royce has increased the value it delivers to its customers while at the same time increasing its own efficiency.

How to Use This Book

You probably are reading this book not just for your entertainment but rather with the intent of reflecting on how your organization creates connections to your customers and suppliers. We get it. That's why we wrote this book neither as an academic textbook nor as a scholarly treatise. The main purpose of our writing is to help you design your own connected strategy so that you can create a competitive advantage for your firm.

At the end of each part of this book, we want to pause and help you apply all the frameworks in the form of a workshop. Each workshop consists of worksheets and guiding questions that we have road-tested with a large number of our executive education participants. Use them on your own, or even better, use them to engage your team members and other stakeholders in a structured workshop.

On the website for this book, connected-strategy.com, you can find more information on how to run your own workshop. The site has suggested timelines for the workshops, as well as downloadable templates of all exercises and group assignments. We also provide you with a number of filled-out examples for the worksheets that will be useful as you apply the tools we present in this book. Lastly, the website hosts dozens of podcasts featuring executives from a wide array of industries, from consulting to education and from banking to security services.

To illustrate our ideas and frameworks in this book, we use many examples from firms around the world. Some of these examples will hopefully spark ideas for your own organization. At the same time, we want to be clear about one thing: we certainly do not expect all the firms we mention to emerge as winners in their industries. Frankly, we would be extremely surprised if they did. The world of connected strategy is developing, and many new winners and losers will be created. We believe in the power of the ideas we present in this book, but we are not offering investment tips for particular firms.

Whether you are a startup trying to disrupt an existing industry, or an incumbent firm that wants to revitalize its strategy and defend its business, whether you deal directly with end customers, or are in a business-to-business setting, we believe connected strategies will play a pivotal role in helping you achieve competitive advantage. If you don't think about connected strategies, someone else in your industry most likely will!