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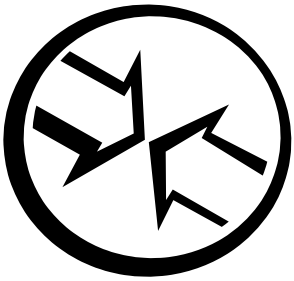
Build Platforms, Not Just Products



COMPETITION

In 2007, two recent graduates of the Rhode Island School of Design, Brian Chesky and Joe Gebbia, were struggling to pay the rent on their apartment in San Francisco. When they heard that the city's hotels were fully booked during an upcoming design conference, they had an entrepreneurial idea: Why not rent out a bit of their space? They bought three airbeds (inflatable mattresses), put up a website, and, within six days, found three guest lodgers. Each one paid $80 a night. "As we were waving these people goodbye, Joe and I looked at each other and thought, there's got to be a bigger idea here," Chesky said.[1] By the following year, they had teamed up with another friend, computer science graduate Nathan Blecharczyk, and started a business that they later named Airbnb.

By 2015, Airbnb had served 25 million travelers, providing them with lodging in over 190 countries around the world. But it doesn't look like a typical global corporation in the business of providing lodging and hospitality. Instead of building hotels and hiring employees to serve customers, the three founders built a platform that brings together two distinct types

of people: hosts with homes to rent (whether a spare room or their whole home while they are away) and travelers who are looking for someplace to stay. The company has minimal assets. In fact, it doesn't own a single rental property. Yet it can offer travelers their choice of more than 1 million listings, ranging from a sofa or tiny guest room up to an actual castle (more than 600 are available to rent). The company takes a cut of the rental fee on each transaction.

Airbnb has only a few hundred employees but manages to book 40 million guest-nights per year because its platform is built to be as simple and self-service as possible for both homeowners and travelers. Its staff focuses on building a Web interface and mobile apps that make it as easy and frictionless as possible for a host to offer lodging or for a traveler to find a place to stay.

Much of Airbnb's success comes down to building trust between the two parties. (Who wants to have their apartment trashed by out-of-town guests when they are on vacation? Who wants to show up at a dump that doesn't match what you booked online?) Building trust begins with mutual ratings and reviews for both hosts and travelers but goes far beyond that. The company waits to release rental payments to the host until after the renter has checked in and verified they are happy with the property; it likewise holds onto the renter's deposit until after they have left and the host has verified their home is in good shape. As further assurance, it provides each host with $1 million in insurance for damages. It has also added verification of both parties through detailed user profiles, ID verification, and links to social networks like Facebook. Travelers looking for options in a destination city can search by neighborhood, can read the company's curated recommendations on where to stay, and can even use Facebook to find "friends of friends" who are renting out spaces. Its founders were even able to mix trust building and marketing: by hiring photographers to take pictures of lodgings for any host who requested it (for free), they offered better visuals for the host while guaranteeing visitors that the company had verified the location they were renting. This innovation alone rapidly increased growth in bookings.

Airbnb has grown at a phenomenal rate, with more rooms for rent than Hilton, InterContinental, or Marriott[2] and nearly $4 billion in gross bookings in 2014.[3] During that year's World Cup games, out of 600,000 attendees who came to Brazil from around the world, 25 percent stayed at an Airbnb rental. Today, the company operates in over 190 countries.

"Every country other than North Korea, Iran, Syria, and Cuba," Chesky cheerfully told television host Stephen Colbert in a 2014 interview.[4] That list has since been updated: when the United States reestablished ties with Cuba in 2015, Airbnb was one of the first American companies to announce it had launched a presence there.[5]

Rethinking Competition

Airbnb is an example of a platform—a class of businesses that are rethinking which competitive assets need to be owned by a firm (e.g., rental properties and trained service staff) and which can be managed through new kinds of external relationships.

These platform businesses are part of a broad transformation of the domain of competition and the relationships between firms. In the past, competition took place between similar rival businesses and within clearly defined industries with stable boundaries. Businesses created value within their own organization and in partnership with their suppliers and sales channels. But in the digital age, the boundaries between industries are blurring, and so is the distinction between partners and competitors. Every relationship between firms today is a constantly shifting mix of competition and cooperation.

Think of the television business. In the traditional view, a network like HBO partners with cable companies for distribution, and it competes with networks like Showtime or AMC—companies with the same business model and a similar offering for customers. But as digitization has transformed media, HBO has found itself competing with Netflix, an asymmetric challenger that is going after the same customers with a different pricing model and a completely different means of distribution. As the boundaries of the "television" industry have been redefined, HBO must compete for leverage against its distribution partners, cable companies like Comcast and Time Warner (which previously owned HBO's parent company). It also must compete for leverage against some of its own star talent, who now have the option to work with firms like Netflix or Amazon as they develop their own original programming for direct distribution to viewers. At the same time, three of the biggest broadcast television networks—ABC, NBC, and Fox—have put aside their rivalry to cooperate in creating Hulu, a digital channel that aggregates all their content for online viewing with

a mix of advertising and subscriber revenue. Clearly, the shape of interfirm competition and cooperation in the world of television has gotten very complicated.

The digital revolution is redefining competition and relationships between firms in several ways. It is supercharging the growth of platform businesses like Airbnb. For businesses like HBO, it is disintermediating and reshuffling channel and partner relationships. More broadly, it is shifting the locus of competition: competition is happening less within industries and less between similar companies that seek to replace each other; it is happening more across industries and between partners who rely on each other for success. Lastly, digital technology is increasing the importance of "co-opetition," where companies that compete directly in some arenas find it valuable to act as partners in other areas. (See table 3.1.)

This chapter explores the changing dynamics of competition and interfirm relationships and their particular impact on platform businesses. It also presents two strategic planning tools. The first is the Platform Business Model Map, which can be used to analyze or design new platform businesses by understanding how they exchange value between different kinds of partners. The second is the Competitive Value Train, which provides a lens for understanding the simultaneous competition and cooperation among supply chain partners, traditional rivals, and asymmetric competitors and for planning strategic moves to increase a business's competitive leverage.

Let's start by looking more deeply at the concept of platform businesses and what they tell us about the shifting roles of competition and cooperation.

Table 3.1
Competition: Changes in Strategic Assumptions from the Analog to the Digital Age

From	To
Competition within defined industries	Competition across fluid industries
Clear distinctions between partners and rivals	Blurred distinctions between partners and rivals
Competition is a zero-sum game	Competitors cooperate in key areas
Key assets are held inside the firm	Key assets reside in outside networks
Products with unique features and benefits	Platforms with partners who exchange value
A few dominant competitors per category	Winner-takes-all due to network effects

Rise of the Platform

Airbnb is just of one of many new digitally powered businesses that act as platforms—bringing together two or more parties to create and exchange value *through* the business rather than trying to create all the value themselves.

Marketplaces like eBay, Etsy, or Alibaba's Taobao bring together buyers and sellers of goods of all kinds in direct sales or auctions. Matchmaking services like Uber or Didi Kuaidi provide taxi services not by purchasing vehicles and hiring drivers but by providing a platform to connect drivers in their own cars with people nearby needing a car service. Media companies from YouTube to Forbes.com operate by bringing together independent content creators, content consumers, and advertisers—each of whom is seeking out the other. Mobile operating systems like Apple's iOS, Google's Android, and Xiaomi's MIUI compete by attracting the best software developers to create apps, which, in turn, draw consumers to buy their smartphones.

Platform businesses are everywhere, appearing in a wide range of industries:

- *Retail*: Taobao, eBay, Amazon Marketplace
- *Media*: YouTube, Forbes.com
- *Advertising*: Google, Baidu, Craigslist
- *Finance*: PayPal, Kickstarter, Alipay
- *Gaming*: Xbox, PlayStation
- *Mobile computing*: iOS, Android, Xiaomi
- *Business software*: SAP, Salesforce
- *Home appliances*: Philips, Nest
- *Hospitality*: Airbnb, TripAdvisor
- *Transportation*: Uber, Didi Kuaidi
- *Education*: Coursera, Udemy
- *Recruiting and job search*: LinkedIn, Glassdoor
- *Freelance work*: Upwork, Amazon Mechanical Turk
- *Philanthropy*: Kiva, DonorsChoose

Platforms represent a fundamental shift in how businesses relate to each other—from linear to more networked business models. Platform businesses can often be very light in assets but generate large revenues. Instead

of building features and seeking to get customers to use their own products, they build ecosystems by getting customers to interact with each other. Rather than simply paying for services received, customers both provide value and receive value. As a result, the value of a platform grows as more people use it.

What Is a Platform Business Model?

Vagueness abounds in the current use of the word *platform*, whose most general meaning is "something on which you can build." In tech circles, a platform may be any underlying software on which additional programs are built. In media industries, it may mean a distribution channel. In marketing, it may refer to any brand or product line that could be used to launch additional products. In the context of this chapter, however, we will be discussing platforms in a specific sense—as a kind of business model.

Origins of Platform Theory

The idea of platforms as business model has its origins in the economic theories of two-sided markets developed by Jean-Charles Rochet and Nobel laureate Jean Tirole,[6] along with Thomas Eisenmann, Geoffrey Parker, Marshall Van Alstyne,[7] and others. Their work examines pricing and competition in markets where one business serves two different types of customers that are dependent on each other. They found that the two sides often show different price sensitivity and that in efficient markets one side often subsidizes the other (e.g., advertisers subsidize the cost of media for consumers, and merchants cover the transaction costs of credit cards for the shoppers using them).

The study of two-sided markets led, in turn, to the realization that the same effects could be seen in markets with more than two types of customers (Visa and MasterCard, for example, bring together not just the consumers who use credit cards and the merchants who accept them but the credit-issuing banks that back them as well). This led to the more general concept of multisided markets. At the same time, the theory began to shift from looking at the market dynamics (i.e., who will pay what price in equilibrium with others) to looking at the kind of businesses that make them possible (i.e., what distinguishes the business model of a Visa or MasterCard and what its success factors are).

The term in economics for the business model at the center of a multisided market is a *multisided platform*, or just *platform*. Going forward, you can take my use of the term *platform* to refer to these multisided platform business models.

It is by applying these economic theories that we can begin to understand the power and unique value of businesses like Airbnb, Uber, or Xiaomi.

A Definition of Platforms

The most precise and illuminating description of what constitutes a platform comes from the work of Andrei Hagiu and Julian Wright.[8] To condense their thinking, I offer this definition:

> *A platform is a business that creates value by facilitating direct interactions between two or more distinct types of customers.*

Three key points from Hagiu and Wright that I include in this definition are worth noting:

- *Distinct types of customers*: To be a platform, the business model must serve two or more distinct sides, or types, of customers. (These can be buyers and sellers, software developers and consumers, merchants and cardholders and banks, etc.) The need for distinct sides explains why a pure communication network (such as Skype, fax, or telephone) is not a platform: although it connects customers to each other, the customers are all of the same type. The unique dynamics of platforms arise because they bring together different parties that each play different roles and contribute and receive different kinds of value.
- *Direct interaction*: Platforms must enable these two or more sides to interact directly—that is, with a degree of independence. In a platform such as Airbnb or eBay, the two parties are free to create their own profiles, set and negotiate pricing, and decide how they want to present their services or products. This is a critical distinction between a platform and a reseller or sales channel. The independence of interaction is why our definition of platforms does not include a supermarket connecting brands with shoppers or a vertically integrated consulting firm connecting clients with its hired employees.
- *Facilitating*: Even though the interactions are not dictated by the platform business, they must take place through it and be facilitated by it.

This is why our definition of platforms does not include a franchise business like McDonald's or H&R Block, which provides brand licensing, training, and support services to individual owners who open branch businesses. Although franchisors do, in some sense, enable commerce between the franchisees (e.g., restaurant owners) and end consumers (e.g., restaurant patrons), that commerce does not flow through the original corporation, and only one party (the franchisee) is in any way affiliated with the original franchisor company.

In table 3.2, we can see how a number of different platforms bring together distinct types of customers and create value by facilitating their direct interaction.

Table 3.2
Platforms and the Customers They Bring Together

Platform	Distinct customers, interacting directly, facilitated by the platform
Airbnb	Hosts Renters
Uber	Freelance drivers Riders
DonorsChoose	Schoolteachers seeking grants Donors
PayPal	Account holders Merchants Banks
YouTube	Video viewers Video creators Advertisers
Google search	Search engine users Website creators Search advertisers
Forbes.com	Independent writers (not employees) Readers Advertisers
Android operating system	Phone and tablet users Hardware manufacturers App developers In-app advertisers
Salesforce.com	Software users App developers creating additional integrated services

Four Types of Platforms

Platform business models are not new to the digital age, although (as we shall see) digital technologies are fueling their increasing spread and dominance. But even before the rise of mobile computing or the Internet or even information technology, platform business models could be seen in a variety of forms.

David S. Evans and Richard Schmalensee identify four broad types of platform businesses (see table 3.3):[9]

- *Exchanges*: These types of platforms (sometimes also called marketplaces) bring together two distinct groups of customers for a direct value exchange, with each group attracted by the number and quality from the other side. One familiar example would be real estate brokers, who bring together buyers and sellers. Another would be a shopping mall, which promotes itself as a shopping destination to consumers and rents space to various vendors. Digital exchanges can bring together buyers and sellers of products (such as eBay) as well as services (such as Airbnb).

Table 3.3
Four Types of Platforms

Type of platforms	Pre-digital examples	Digital examples
Exchange	Real estate brokers Shopping malls Nightclubs	Product marketplaces (eBay, Etsy) Service marketplaces (Airbnb, Uber) Dating websites (eHarmony)
Transaction system	Credit cards Debit cards	Digital payment systems (PayPal) Digital currencies (Bitcoin)
Ad-supported media	Newspapers (subsidized or free due to ads) Broadcast TV	Websites with ads Social networks with ads
Hardware/software standard	Color TVs (RCA vs. CBS) Videocassettes (VHS vs. Betamax) Motor fuels (diesel vs. ethanol)	Videogame consoles (Xbox, PlayStation) Mobile operating systems (iOS, Android)

- *Transaction systems*: These platforms act as an intermediary between different parties to facilitate payments and financial transactions. Issuers of both credit cards and debit cards provide this service, linking together cardholders, merchants, and banks. New digital payment systems, whether PayPal or Apple Pay, are based on the same model. To succeed, a transaction system must get sufficient numbers on board from each party: merchants will install card readers and accept the fees owed to the platform only if they see a sizable number of customers using the system; customers will be more likely to sign up if they see that the service is widely accepted by merchants that they buy from.
- *Advertising-supported media*: In this case, the platform typically plays an additional role of creating (or sourcing) media content that is attractive to consumers. For example, a printed newspaper or an online news publication hires writers to create professional content. Once the value of the content attracts an audience, the platform can charge advertisers who are eager to present their messages to that audience. As the platform attracts more people, its value to advertisers increases. The advertisers, in turn, provide value to the audience by reducing or eliminating the cost of the content for them.
- *Hardware/software standards*: These platforms provide a uniform standard for the design of subsequent products to enable their interoperability and benefit the ultimate consumer. At the birth of color television, a struggle took place between RCA and CBS to determine which would establish the standard used by broadcasters and television set manufacturers (RCA won). Later the introduction of videocassette tapes resulted in a competition between the VHS and Betamax standards for hardware (VHS won). But not every standards competition ends with a single winner. Today's smartphone market is roughly divided between Apple's iOS and Google's Android. Each of these operating systems is a software platform vying to attract more software developers that will build apps; in addition, Android serves as a hardware platform for handset manufacturers like Samsung that are seeking to compete with Apple's iPhone.

This list is not exclusive; new platform businesses could well arise that don't quite fit any of these four types. But these categories provide a useful way of thinking about the differences among current platform businesses.

Direct and Indirect Network Effects

One of the key features of platforms is that their value increases as more customers use them. This phenomenon is commonly called network effects, but there are actually two different kinds of network effects that can impact the growth of a business.

Direct network effects (or "same-side" network effects) occur when the increasing number of customers or users of a product drives an increase in value or utility for that same type of user. In communications theory, this is commonly dubbed Metcalfe's law. When the first user purchased a fax machine, the utility was zero: Who could they dial? As the number of users increases, each additional user leads to an exponential increase in the number of potential connections that can be made in the network (connections = $n(n - 1)/2$). Direct network effects occur in platforms such as Facebook, which is a platform because (unlike a fax machine) it brings together not just users but advertisers, publishers, and app developers as well.

For platforms, the more common type of network effect is indirect network effects (or "cross-side" network effects). These occur when an increase in the number and quality of customers on one side of the platform drives increasing value for customers on the *other* side of the platform. You don't sign up for Visa because it has lots of other cardholders (no direct network effect), but the presence of lots of Visa cardholders does make it more attractive for a merchant to accept Visa (strong indirect network effect).

Are indirect network effects reciprocal? Not always. In advertising-supported media, the indirect network effects usually run only one way: as the number of readers increases for a newspaper, its value to advertisers increases as well, but increasing the number of ads in each issue does not directly increase the value for readers. (The one exception would be classified ads, where the ads really are the "content" that the audience goes to the publication to read.) For media companies, that imbalance is critical in determining pricing for both sides.

But for platforms other than ad-supported media, the indirect network effects usually do work both ways. Airbnb renters like to see more hosts to choose from, and hosts want to see more potential renters on the site. When indirect network effects happen both ways, they drive a virtuous cycle, with new customers on each side increasing the attractiveness to the other side. This is what drives extremely rapid growth and a highly defensible market position for a platform like Airbnb or PayPal that becomes a leader in its category.

The Platform Spectrum

Any business today faces a strategic choice of whether to pursue a platform model or a more traditional business model. Should you build a store or a marketplace? Should you hire a group of experts or cultivate a network of them? But the choice is not a simple "all or nothing" decision. The right business model may be somewhere on a spectrum from platform to nonplatform.

Consider the second defining quality of platforms: they allow direct and independent interaction between the parties they bring together. In practice, this independence may happen by degrees. Both Uber and RelayRides allow owners of cars to provide mobility to those without them (in the former, the car comes with a driver; in the latter, you borrow the car and drive it yourself). But whereas RelayRides lets riders offer their own price, Uber imposes standardization around rates. Within the category of electronic gaming, both consoles like Microsoft's Xbox and app stores like Google Play act as platforms, bringing together designers who have games to sell and gamers who are looking to buy. However, the console makers exert more control on the interaction: although the game developers set the pricing, the actual purchase contract is between the gamer and Microsoft. On the Google Play store, the parties are given more independence: the gamer buys the app from the third-party designer, but Google maintains quality review.[10]

Some companies successfully employ a mix of platform and nonplatform business models, even within the same business unit. Amazon.com started as a pure e-commerce business, buying and selling products just like a physical retailer. But it later launched Amazon Marketplace, which allows independent stores to offer goods for sale on Amazon's website, greatly expanding its product breadth and enhancing Amazon's margins. The platform and nonplatform businesses sit side by side; in fact, products from both appear in the same search result on Amazon's website. In the retail world, electronics chain Best Buy was long a traditional reseller, controlling all aspects of how products are priced, displayed, and sold in its stores. More recently, though, it has allowed major brands such as Samsung, Microsoft, Sony, Google, and Apple to lease space in its retail stores and operate independent, branded mini-stores that are designed, stocked, and even staffed with salespeople from the brand itself. With its mini-stores, Best Buy is using a platform model that connects shoppers with the brands directly.

In some cases, both parts of the business may be significant: in 2014, Amazon reported that 42 percent of its units sold were from its Marketplace partners. When India's laws prevented foreign companies from conducting direct sales in e-commerce, Amazon entered the market with a 100 percent platform strategy, allowing local retailers to sell products through Amazon.in and its fulfillment services. In other cases, one business model may serve only particular customers. Evernote provides cloud-based note-taking software to 100 million users (I'm one of them). It also has an Evernote Platform that allows independent developers to build additional apps for Evernote users and an Evernote Market for independently made hardware and accessories; these offerings skew mostly toward customers with enterprise licenses, further widening the customer base.[11]

The decision whether to pursue a platform business model can shift over time. Shoe retailer Zappos.com started as a platform (a marketplace for designer shoe brands and consumers) but pivoted its strategy to become a direct reseller. Apple famously lost the desktop wars to Microsoft because it sought to control the development of software and hardware, whereas Microsoft aggressively pursued a platform strategy for Windows, seeking out as many partners (both PC makers and software developers) as possible. Apple almost made the same mistake with the iPhone before a major strategic change in its second year, when Steve Jobs allowed outside developers to begin writing apps for the new phone. Sales increased 245 percent that year, and the iPhone as a multisided platform business went on to make Apple the most valuable company in the world.

How Digital Impacts Platforms

As we have seen, multisided platforms have been around in various forms for many years. The basic model of an exchange probably dates back to the earliest markets where a landlord or municipal government owned the property and leased out stalls or patches of dirt to merchants who could peddle their wares to customers drawn by the market's promise.

So why are platform businesses so important now? Why are they growing so quickly and influencing so many sectors? Digital technologies are supercharging the growth and power of multisided platforms. These enabling technologies include the Web; on-demand cloud computing; application program interfaces (APIs), which increase the interoperability of data and functionality; social media; and mobile computing devices.

Together, these digital technologies are driving four key elements of platforms:

- *Frictionless acquisition*: Thanks to the Web, APIs, and software development kits (SDKs), the process of acquiring new customers for a platform is increasingly frictionless. There is no longer a need to negotiate terms for each additional participant in a multisided platform, removing a critical bottleneck to growth. For example, to place an ad on a television program, an advertiser needs to meet and negotiate directly with the network (or via a media buyer as intermediary) and may even need to commit to the purchase months in advance during an up-front purchase period. By contrast, to place an ad on Google to be seen by customers searching on specific keywords, an advertiser simply goes to the Google AdWords website, enters its credit card information, and begins using a self-service tool to test, launch, and optimize its advertising campaign in real time.
- *Scalable growth*: Cloud computing now allows any size business to rapidly scale the size of its platform as fast as it can acquire new customers. By taking a physical service like car transport or lodging reservations and moving it to a cloud-based platform, companies like Uber and Airbnb can expand with virtually no ceiling on their growth. A traditional nightclub may thrive as a platform that attracts mutually attractive customers, but if it grows quickly, it will always reach a capacity cap until it can invest in renting or buying a new venue. By contrast, MeetUp.com, a cloud-based platform business that allows users to organize spontaneous social gatherings anywhere in the world, has no obvious limit to its scale. (MeetUp has 21 million members in 181 countries. As I type this, there are nearly 4,000 meet-ups happening simultaneously around the world.)
- *On-demand access and speed*: Mobile computing means that every platform now can be accessible to all of its customers anywhere at any time. As Airbnb founder Brian Chesky has remarked, "Imagine Uber, if every driver didn't have a phone . . . they have a laptop. And every driver had to drive home to check the laptop to see when a ride was available. Think about how much friction Uber would have! In our business, if a seller has a mobile device, it could simulate the responsive and the up-to-dateness of a hotel. This is why mobile is transformational for our business. It means a seller can act like a company, in the best possible way."[12]
- *Trust*: Anonymity is great for facilitating some kinds of interactions on the Web, but it isn't very helpful for a platform business. The rise

> of dominant social networks and the ability to authenticate customers through their Facebook, Google, Twitter, or LinkedIn identities make it much easier for even a small start-up to use a verification system for new customers on its platform. That same trust allows for the rapid spread of recommendations and referrals through social media distribution, which is critical to growing a new platform business.

The biggest impact of digital technology on platforms may be in the size of the businesses involved. Before the digital age, platform businesses used to be mostly large enterprises—credit card companies, shopping malls, media companies—because of the resources required to attract sufficient numbers of participating partners. This is the downside of network effects for platforms: it can take a lot of capital to bring parties to the table at sufficient scale (economists dub this the chicken-and-egg problem). With the help of the digital tools described above, the chicken-and-egg problem is much more easily surmounted. Today, multisided platforms are no longer the domain only of large enterprises; they are the preferred launch pad for entrepreneurial ventures of all sizes, from large innovative companies to the smallest but most ambitious entrepreneurs.

Competitive Benefits of Platforms

Three of the five most valuable companies in the world—Apple, Google, and Microsoft—have built their businesses on platform business models. The secret to their success—and that of many other companies—is that platforms provide several powerful benefits to the companies that can build them effectively.

Light in Assets

When Chinese e-commerce and online marketplace titan Alibaba conducted its IPO, I was interviewed by the *Wall Street Journal* on the import of what was the largest IPO ever ($25 billion raised). One of the things I observed was Alibaba's rise among other mega-platform businesses, each with relatively light assets for its market valuation. As Tom Goodwin, a senior vice president at Havas Media, commented a few months later, "Uber, the world's largest taxi company, owns no vehicles. Facebook, the world's most popular media owner, creates no content. Alibaba, the most valuable

retailer, has no inventory. And Airbnb, the world's largest accommodation provider, owns no real estate. Something interesting is happening."[13]

Because platforms give their customers the job of creating much of their value, they tend to be light in assets. Both capital and operating costs are low at businesses like Airbnb. These companies also tend to have few employees for the revenue they generate because their customers do much of the work that employees would do in a vertically integrated business. As a result, platform businesses can achieve extremely high operating margins on a percentage basis.

Scaling Fast

Platform businesses can grow extremely quickly. Their low operating costs, combined with a scalable cloud computing architecture, make this possible. A line chart of Airbnb's user growth looks like a hockey stick, with listings shooting up 1,000 percent in three years.[14] The ability of platforms to increase revenue with relatively slow employee growth is likely another factor. Airbnb reached $4 billion in gross bookings with only 600 employees.[15]

Since the rise of the Internet, the list of the fastest-growing new companies around the world is dominated by those using platform business models. In fact, eight of the ten most valuable global companies founded since 1994 are platform companies (see table 3.4).[16]

Table 3.4
Ten Most Valuable Public Companies Founded Since 1994

Company	Type of platform	Market value, 9/5/15 (in billions)	Year founded	Country
Google	Ad-supported media	$425.40	1998	United States
Facebook	Ad-supported media	$248.30	2004	United States
Amazon.com	Exchange	$235.70	1994	United States
China Mobile	—	$232.63	1997	China
Alibaba Group	Exchange, transaction system	$167.00	1999	China
Tencent Holdings	Exchange, ad-supported media	$150.87	1998	China
Sinopec	—	$73.62	1998	China
Priceline Group	Exchange	$62.86	1994	United States
Baidu	Ad-supported media	$52.40	2000	China
Salesforce.com	Software standard	$45.45	1999	United States

Source: Companies selected from Forbes Global 2000 list, published May 6, 2015.

Winner Takes All

Once a platform is widely established in its category, it is extremely hard to launch a direct challenger with a similar service—a result of the power of network effects. Customers would rather sign up for a platform that already has broad acceptance or many other users. It would be very hard for a direct competitor to catch up with Facebook (in social networking) or Google (in search) or to launch a new credit card challenger to Visa, MasterCard, and American Express. This defense is weaker in ad-supported media, where network effects are only one-sided (advertisers care about the number of readers, but readers don't care about the number of advertisers). But in a platform with network effects for all parties, new challengers face a formidable barrier to entry. In most cases, this leads toward consolidation around a few very dominant players holding the large majority of the market (e.g., credit cards, search engines).

In certain cases, markets will tend toward a true winner-take-all scenario where only one platform is viable. One example is the platform war between Sony's Blu-Ray and Toshiba's HD DVD to become the hardware standard for high-definition movie discs. Sony won, and Blu-Ray became the sole standard used by Hollywood studios and DVD players alike.

This kind of winner-take-all total consolidation is likely to happen when three factors are present:

1. Multihoming—using more than one platform—is hard for the customer (e.g., nobody wants to buy two DVD players, whereas carrying two credit cards is easy).
2. Indirect network effects are strong (e.g., viewers care what format Hollywood will release movies on, and Hollywood cares what format viewers use).
3. Feature differentiation is low (e.g., there were never going to be major differences in features among DVD players—product differentiation would mostly reside in the TV sets).

This anticompetitive aspect of platforms can be alarming because it can appear to reinforce monopoly behavior. But rather than a few monopolies striding over a handful of very broad industries, the future seems more likely to hold lots of (near) monopolies occupying shifting categories until they vanish (very soon no one will care who won the DVD wars). Facebook

is extremely well protected against another challenger trying to launch an equivalent social networking tool (even Google Plus failed at this). But its challenge is that other platforms will establish dominant positions in slightly different categories of social media interaction—a dominant platform for photos or for messaging or for more ephemeral communications. (This is why Facebook bought Instagram and WhatsApp and tried to buy Snapchat.) The real threat to Google is not that another company will develop a similar search engine (e.g., Bing) but that users and advertisers will be drawn away to other kinds of search tools, like voice search via Siri, product search on Amazon, or other specialized search tools for travel, clothing, or other categories.

Economic Efficiency

One of the most striking benefits of platform business models is that they enable the efficient usage of distributed pockets of economic value (labor, assets, skills) that otherwise could not be effectively used.

The result is a profusion of platforms that bring together lone actors and empower them to contribute economically. These can be micro-retailers who are now able to sell their own craft products on Etsy or their music on CD Baby or micro-resellers who can find buyers for their used goods on eBay or Craigslist. They can be micro-donors on a platform like DonorsChoose or Kiva or micro-patrons of the arts who find that with just $25 they can help fund an independent documentary film on Kickstarter. They can be micro-investors on Lending Club or Funding Circle who are helping to finance others' small businesses. They can be micro-software–companies consisting of a single developer building an app for the most popular computing platforms in the world. They can be micro-freelancers, offering their services as a driver on Uber, a handyman on TaskRabbit, or a spell-checker on Amazon Mechanical Turk. Or they can be micro-renters, renting out their homes on Airbnb or cars on RelayRides. None of these roles would be possible without platforms. The individual actor would never have the resources to find the right matching project, need, or customer. But by reducing the transaction costs and aggregating a community of partners, platforms can unleash untapped economic capacity.

This phenomenon is often mislabeled the "sharing economy." In actual fact, very few platforms have been established to share assets or labor free of charge, and those that do (Freecycle, NeighborGoods, etc.) are all small.

The popular platforms that are commonly cited as evidence of the sharing economy are, in fact, better described as a "rental economy" (renting assets on Airbnb), a "resell economy" (selling used assets on eBay), or a "freelance economy" (selling labor on Uber). The societal benefits of unlocking these pockets of resources might be great. Uber, for example, has argued that its services reduce the total number of vehicles on the road in crowded cities. And Airbnb prides itself on helping homeowners better themselves as micro-entrepreneurs. But the benefits of this economic efficiency seem to accrue only when selling, rather than sharing, is the rule.

Competition Between Platforms

Platforms don't compete just with traditional businesses (Uber vs. a traditional car service). They also compete against other platforms. (Uber competes with Lyft in the United States and with Didi Kuaidi in China; all three are platforms.)

But how do platforms compete with each other in the same category? Not on the same factors—features, benefits, price, location—that differentiate traditional products and services. Instead, platforms tend to compete on five areas of value (see table 3.5):

Table 3.5
Points of Differentiation Between Competing Platforms

Area of value	Examples
Network-added value	More participants (network effects)
	Quality of goods and services from participants
	Data shared by participants
Platform-added value	Unique features and benefits
	Free content
Open standards	Web or app interfaces
	Software development kits and application program interfaces
	Platform control points
Interaction tools	Targeting and matchmaking tools
	Transaction enablers
Trust enablers	Identification systems
	Reputation systems
	Financial safeguards
	Noncompetitive assurances

- *Network-added value*: This is the most obvious way that platforms compete. Due to network effects, the platform with the most current customers is often the one most likely to draw future customers. But the network of participating customers can add benefits beyond sheer numbers. The quality of goods and services customers offer is often important as well. (Etsy has built a platform for selling handmade goods by nurturing a community of craftspeople making quality goods of a kind you may not find on eBay.) The data provided by one group of customers can also increase the ability of a platform to attract customers of another group. (The amount of social, demographic, and personal-interest data that users provide to Facebook is precisely the reason the company can charge advertisers relatively high rates.)
- *Platform-added value*: In some cases, the value provided by the various types of customers is not enough to make a platform competitive. The platform itself has to develop unique features and benefits to attract customers. Google attracts users to Android phones with its Google Now personal assistant and the seamless integration of its popular Maps, Calendar, and Gmail. Its competitor Apple attracts users with its own software, like iTunes and the Siri personal assistant, and the unique hardware design of its iPhones. For ad-supported media platforms, the biggest area of competition is their platform-added value—that is, the content they create to attract their audience. That content may be subsidized or provided entirely free to the consumer, thanks to advertiser revenue. Although a video channel or blog competes with its peers by trying to make attractive content, its real business model is to sell the audience to advertisers.
- *Open standards*: Another important way that a platform competes is by offering more-open and easier-to-use standards than its competitors. The rapid growth of platforms like YouTube is aided in large part by the self-service Web or app interfaces they offer, which make it easy for anyone to upload content or join a platform's network. For customers who need more technical control, platforms will use SDKs and APIs to provide self-service access. Openness is relative, however, and never completely absolute. Google's Android platform is more open than Apple's iOS, but even Android puts restrictions on phone manufacturers who wish to use its services like Google Maps, Calendar, and Search. (This is why Xiaomi and others use the unrestricted, open-source version of Android instead.) Standards offer access to outside parties, but they also act as control points by which platform owners restrict what

data and functionality outside parties can and cannot access. The only totally open platform is a public design standard. These facilitate interaction by all sides but afford no control or monetization to a central owner. The Internet itself is a set of such standards.

- *Interaction tools*: Once a platform has attracted customers and made it easy for them to come on board, it can compete by providing them with the best tools to find and interact with the right partners. Dating sites like eHarmony or OKCupid compete on the algorithms and data science they use to help men and women find the right match (rather than scrolling through thousands of random entries). Other interaction tools focus on enabling transactions between users. Airbnb added an Instant Book option that allows travelers in a hurry to instantly confirm a reservation—as they would on a hotel website—rather than waiting for a host to reply to their inquiry. eBay provides sellers the option to offer their products via an auction or at a fixed price. Amazon Marketplace provides fulfillment services for its sellers (they don't have to mail packages to the customer like an eBay seller); it also provides order tracking for purchasers.
- *Trust enablers*: The last way that platforms compete to attract customers is by offering better methods to enable trust among the parties they bring together. These can include identification systems, such as social log-ins through Facebook, Google, Twitter, or LinkedIn. (Although the early Internet thrived on anonymity, platforms thrive on identity.) Another enabler is reputation systems, typically in the form of customer reviews. In some platforms, reviews are mutual, but in others, they are only one-way (customers reviews the restaurant where they ate after making a reservation on OpenTable, but the restaurant doesn't review the diners). Trust can also be enabled by financial safeguards, such as insurance to cover losses incurred by customers or mediation of billing disputes by transaction platforms like PayPal. In other cases, noncompetitive assurances are critical to creating trust in a platform. Numerous manufacturers, from Samsung to Philips to Google's Nest, have begun developing "smart" products like lightbulbs, refrigerators, and thermostats for the "connected home." Consumers have been waiting for a single interface rather than having to use a different app for every appliance in the home. But none of the manufacturers was willing to use its competitor's software standard as a platform. This created an opportunity for Wink, a start-up that provides an elegant control interface for any device in the connected home. Because Wink does not make its own competing appliances, it has been able to attract big

manufacturers like GE, Philips, Lutron, Honeywell, Schlage, and Nest to connect to its platform. Sometimes the small platform can win.

Before we move on from the subject of platforms to other changes in the landscape of competition, let's take a look at a strategic mapping tool that can be used to gain insights into any platform business.

Tool: The Platform Business Model Map

The Platform Business Model Map is an analytic and visualization tool designed to identify all the critical parties in a platform and analyze where value creation and exchange take place among the different customers and with the platform business itself. The logic of platforms is quite different from that of traditional product, service, or reseller businesses. It is therefore very important that you understand the value exchange among customers in order to see the strategy behind any successful platform.

In figure 3.1, we see how a Platform Business Model Map displays the various components of Facebook's business model.

Shapes indicate the key parties within the business model:

- *Circle*: The platform
- *Diamonds*: The payers (customers that provide revenue to the platform)
- *Rectangle*: The sweeteners (customers that provide no revenue but help to attract other valuable customers)
- *Spikes*: The number of other customer types that are attracted (e.g., publishers have one spike because they attract only users, but users have four spikes because they attract publishers, advertisers, app developers, and more users like themselves)
- *Double-borders*: The linchpin (the customer type with the most spikes; the king of network effects)

Arrows indicate value exchange:

- Arrows in each direction show the value provided, or received, by each customer type.
- Value in boldface is monetary value.
- Value in parentheses is provided by the platform itself or to the platform itself (e.g., the platform's share of revenues).
- Value not in parentheses is passed through the platform and is provided to other customers.

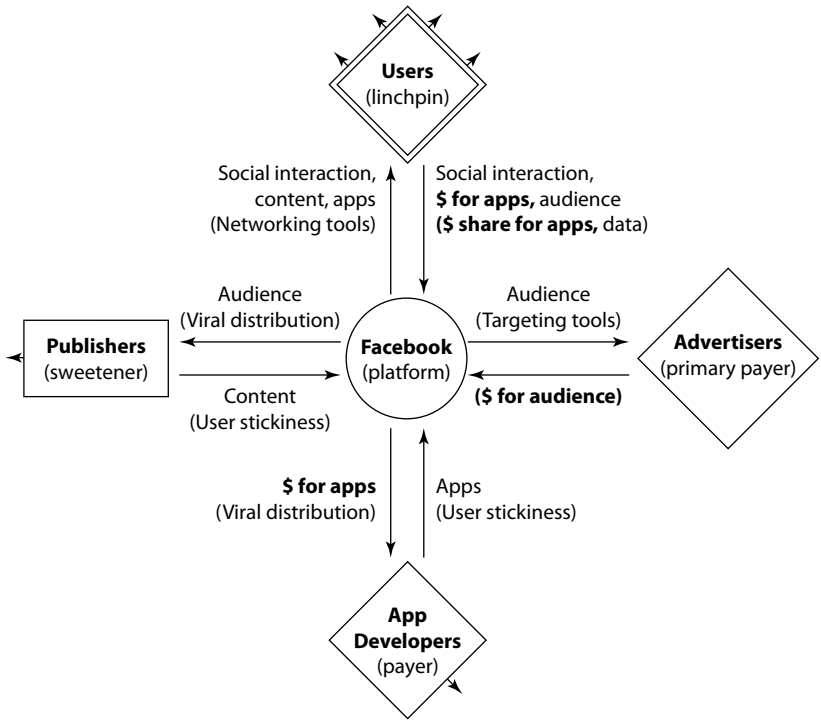


Figure 3.1
The Platform Business Model Map: Facebook.

We can learn several things about Facebook's business model through this tool. Facebook brings together four types of customers on its platform: social network users, advertisers, app developers, and news and content publishers. The business model is a mix of two of our four types of platforms: ad-supported media and software standard (for the app developers). The platform is fueled by cross-side network effects (different types of customers are attracted to each other) and also by same-side network effects (users are attracted by more of their own kind).

What about the relative importance of different types of customers to Facebook's platform? The prime importance of users is clear because even though they pay no fees to Facebook, they are the linchpin that attracts everyone else to the platform. Advertisers, on the right, are the primary revenue source for the business model. The role of news publishers is clarified, too: although they provide no revenue, they add value for the linchpin

customers and hence to the platform (they get users to spend more time on the service and therefore see more ads).

If you are launching your own platform, you can use the Platform Business Model Map to answer these important questions:

- Whom do you need to bring on board to make your platform work?
- How will you monetize?
- Who are your most important customers? (These are likely both the primary payer and the linchpin.)
- Is your business model in balance? Does each party receive enough value to attract its participation? Does each party contribute enough value to justify its inclusion?

You can also use the Platform Business Model Map to analyze other platforms—competitors in your industry, a benchmark from another industry, or a platform that is acting as an intermediary between you and your customers. Analyzing another firm's platform will help you to answer these important questions:

- Who are the platform's key customers?
- What is the role, or value contribution, of each customer type?
- What draws each party to the platform?
- How does the platform monetize?
- What value do you provide if you are a customer of the platform?
- How could you extract or leverage more value from the platform?

A detailed guide on how to draw, and use, the Platform Business Model Map can be found at http://www.davidrogers.biz under Tools.

The Shifting Landscape of Competition

Platforms offer a fundamentally different model for how businesses relate to each other—not as suppliers, distributors, and rivals but as networked partners. But even if it does not use a platform business model, every business faces a very different world of competition in the digital age.

In a traditional view, we think of competition as happening between rival businesses of the same kind in the same industry. We think of collaboration as occurring between a business and the firms that serve as its sales

channels and suppliers. But in the digital era, any relationship between two businesses is a shifting mix of competition and cooperation.

This is because digital technologies are contributing to three major shifts in the competitive landscape. First, competition with rivals is changing, becoming less of a direct contest and zero-sum game. Second, industry definitions and boundaries are becoming more fluid, leading to conflict between more asymmetrical competitors. Finally, the relationships of businesses to their channel and supply chain partners are being regularly reshuffled and reorganized. Let's look at all three shifts.

Co-opetition

Traditional thinking about competition is dominated by metaphors from war and sports. The aim of business is to "win," to "be the best," and to "beat" the competition. As in sports contests, our enemies are similar to us (Ford vs. General Motors, Sony vs. Samsung), and we compete within a clear set of rules: the boundaries of our industry. In the "business as contest" view, competition is a zero-sum game: for one side to win, the other side must lose. As Gore Vidal wrote, "It is not enough to succeed. Others must fail."

Michael Porter, perhaps the most famous management thinker on competition, criticizes this view of "competition to be the best" and warns that it is a path to mediocre performance. Simplistic striving for market share (remember GE CEO Jack Welch's famous insistence on being #1 or #2 in every industry) leads to price wars and low profitability. Aiming to be the generic "best" (as in the rallying cry of General Motors CEO Dan Akerson, "May the best car win!") obscures the importance of finding a unique way of creating value for customers, as this presumes there is only one way. A zero-sum view of competition sets up a race to the bottom that no one can win.[17]

Real competition is far from a zero-sum contest. In many cases, effective strategy calls for even direct competitors to find ways to work together cooperatively in certain arenas. The term *co-opetition* was coined by Novell founder Ray Noorda and popularized by Adam Brandenburger and Barry Nalebuff in a book of the same name. The authors apply game theory to business relationships to show why the right strategy for rival businesses is often a mix of competition and cooperation on different fronts. For example, peer universities will compete fiercely during the admissions process to

attract the same desirable student applicants and during the hiring process to attract the same promising faculty. Yet, at other times, they will work together to advance the standing and role of university education in the broader market. In Brandenburger and Nalebuff's view, rival companies must cooperate to "grow the pie" at the same time that they compete with each other to "divide the pie."[18]

Digital platforms are increasingly a factor in driving strategic cooperation among business rivals. If you examine today's leading consumer technology companies—Apple, Google, Facebook, Samsung, Amazon—it is clear that they are all competing fiercely on multiple fronts. Apple's hardware competes with Samsung's and Amazon's. Apple's operating system competes with Google's (which is running on Samsung phones), which also competes with Amazon (which is running a proprietary and competitive version of Android). Facebook is competing with all these operating systems to be the most dominant layer of customer interaction on mobile devices and the most valuable digital advertising platform. It is also competing with Google's YouTube to be the biggest platform for online video distribution. Amazon is striving to steal search engine traffic for products from Google and building an advertising platform of its own. Meanwhile, Amazon is striving to stay ahead of Google and Apple as the leading source for digital books, television shows, and movies while all three compete to distribute downloaded and streaming music.

We could easily expect these five companies to behave like the Five Families of organized crime at war with each other in the *Godfather* movies. But, in fact, all five are deeply enmeshed with each other, cooperating and linking their products and services. Apple devices have long run Google as their default search engine. Facebook is the most popular app on everyone's mobile devices. Amazon's media collections are available and popular on Apple and Android devices, despite competing directly with Apple's App Store and Google's Play. Samsung actually manufactures many of the critical components for the very Apple iPhones that are competing with its own phones. The reason for all this cooperation is clear: the power of platforms. The power of Google in search, Amazon in media distribution, Facebook in social networks, and Apple and Android in mobile operating systems means that none of these businesses can afford to cut off their competitors from their own customers.

In other cases, disruptive threats from new technologies are driving rival businesses to team together and cooperate to defend their turf. Television networks had already seen the impact of digital distribution and

digital piracy on industries like music and books when they decided to team together to launch Hulu, an online streaming television service that combines the latest shows from the same networks that compete as direct rivals in traditional television distribution.

Fluid Industries and Asymmetric Competitors

Much of our thinking about competition takes the industry as the unit of analysis. Porter's five forces (the most famous framework for thinking about competition) provide a model for the overall level of competition within an industry: How intense is competition in the U.S. airline industry? Or the Mexican cement industry? Is it increasing or decreasing? And so on. But what happens if the definition and the boundaries of your industry are in flux?

Today, the boundaries of industries are much less static due to rapid technological change. When the electric car company Tesla entered the market, it seemed to clearly fit in the automotive industry, competing against other manufacturers of electric, gas, and hybrid vehicles, like Toyota, BMW, and General Motors. But in order to develop its cars, Tesla has had to focus on developing next-generation electric batteries as well as services for charging them. In 2015, Tesla announced that it might begin offering these same batteries for electric power storage in consumers' homes. If successful and if combined with home solar panels, these could become a challenger to traditional electric utilities in the home.[19] So is Tesla a car company or an electric battery company? We don't know yet.

Meanwhile, Alphabet (Google's parent company) is one of the leading companies developing software for self-driving cars, drawing on its strengths in massive data computation. When these cars become commercially viable, the company that is most known for its search engine might become one of the dominant players in an auto industry that is becoming as focused on data and artificial intelligence as it is on engines and chassis design. As digital sensors and connectivity become embedded in more and more objects (cars, tractors, jet engines, home appliances), the Internet of Things is likely to redefine the boundaries of many industries that were less transformed by the Internet than were media and information businesses.

Companies can expect to compete with more and more businesses that do not look much like them. We can think of this as a shift from symmetric to asymmetric competitors.

Symmetric competitors offer similar value propositions to customers. BMW and Mercedes-Benz have different brands and appeal to different drivers, but their offerings are broadly similar: ownership or lease of a private vehicle with many of the same features. Symmetric competitors also deliver that value with similar business models. One carmaker may be larger or smaller, with different economies of scale or other factors, but the broad model is the same—manufacturing plants, dealerships, pricing for sale and lease.

Asymmetric competitors are quite different. They offer similar value propositions to customers, but their business models are not the same. For an automaker like BMW, an asymmetric competitor might include a ride-sharing service like Uber—if customers buy fewer cars because Uber can fulfill their transit needs. (For many American teenagers, signing up for an Uber rider's account may replace getting a driver's license as the rite of passage upon turning 16 years old.[20]) If an electric utility's symmetric competitors are other companies providing energy to homes from the power grid, its asymmetric competitor could be a partnership between Tesla's home batteries unit and a solar panel company, which together could enable homeowners to unplug from the grid completely. If HBO's symmetric competitors are Showtime and AMC (offering programs to consumers through the same cable bundles), then its asymmetric competitors would include Hulu and Netflix, which provide viewing options and original content through digital devices and outside of the cable intermediary.

Rita McGrath advises thinking about competition less in terms of industries and more in terms of arenas—companies that have a similar offer, for the same market segment, in the same geographic location.[21] Russell Dubner, U.S. CEO of Edelman, the world's largest independently owned PR firm, thinks a lot about asymmetrical competitors, or "substitutes," as he calls them. "We always look at substitutes—how else can our client spend their money to achieve that same goal? If you just look at direct competition, someone can eat your lunch and you'll never see them coming."[22]

Disintermediation and Intermediation

One of the biggest impacts of digital technologies has been on the relationships of businesses to the partners in their supply chain—the companies that supply critical inputs for the primary businesses' own products or that

create additional value and distribute or sell those products to their eventual consumers.

This disruption and reconfiguration of business relationships is mostly talked about in terms of *disintermediation*—the removal of an intermediary or middleman from a series of business transactions. The Internet is widely known to have been a powerful force for disintermediation, as it has made it much easier for goods and services of all kinds to reach any audience that wants them.

Newspapers were disintermediated by classified websites like Craigslist or Monster.com. Individual advertisers were able to skip the middleman (an expensive print ad in the local newspaper) and reach the desired audience directly by posting a cheap or free ad on one of these popular websites. Retail bookstore chains like Barnes & Noble and Borders Books were disintermediated by the arrival of Amazon.com, which for the first time offered publishers another path by which to sell books to consumers (Borders eventually filed for bankruptcy). In these cases, a new, digital-first challenger arrived to act as intermediary, letting the supplier sidestep its traditional channel for reaching customers.

In other cases, companies trying to reach their ultimate consumers may build their own digital channel to sidestep, or disintermediate, their traditional partners. The insurance industry in many countries was built on an agency model, in which insurers sold their policies to individuals through independent agents. This reduced the employee overhead for the insurance companies but put a barrier between them and the users of their products, which inevitably reduces how much they know about those consumers and how effectively they can market to them. Insurance companies are extremely beholden to the intermediary, their agents, and this dependency hampers them in many markets when responding to consumers' increasing desire for self-service and online shopping and purchasing options. Newer insurance companies, such as Geico (owned by Berkshire Hathaway), have entered the market that are selling directly to consumers online. Allstate Insurance has maintained its insurance agents while at the same time acquiring Esurance, which sells directly to consumers like Geico does. Allstate is, in essence, maintaining and disintermediating its sales partners at the same time.

Digital platforms are also fueling a reverse phenomenon, which is best described as *intermediation*. In these cases, a new business manages to insert itself as an intermediary between the customers and a company that used to sell directly to them. Intermediation happens when a platform

builds such a large customer base and becomes such a valuable interface to customers that other businesses cannot afford to skip the opportunity to reach customers through that platform. The benefit to the new intermediary is that it inevitably extracts a toll or platform benefit, often capturing a great deal of value.

Facebook, for example, has managed to insert itself as an intermediary between news readers and news publications that previously reached them directly, whether through printed editions or their own websites and apps. With social media driving over 30 percent of all traffic to publisher websites and Facebook delivering 75 percent of that social traffic, no publisher, from BuzzFeed to The New York Times Company, can afford to skip using Facebook as a means to promote its content.[23] That gives increasing leverage to Facebook, which is able to greatly influence the prominence and visibility of publishers' articles in the News Feed of its users. (In fact, Facebook became such a huge driver of publisher traffic only after reconfiguring its algorithm in December 2013 to give more priority to news stories.) As Facebook's leverage over publishers grows, it is expected to extract a share of the advertising revenue from the readers it delivers to news publishers.[24]

The same phenomenon of intermediation can be seen with other increasingly powerful platforms. Apple Pay, the mobile payment system for iPhones, iPads, and Apple Watches, was able to enlist Visa and MasterCard as partners for its launch, despite the fact that Apple Pay is inserting itself as an intermediary between these credit card companies and their own cardholder customers. Apple's huge and affluent customer base and its track record in designing digital interfaces that customers use make it too powerful to ignore in the growing mobile payments sector. When a consortium of 200 German publishers complained that Google was stealing value from them by including their articles in its search results, Google decided to simply exclude them from its searches. When they experienced a loss of traffic that they said could cause member publishers to go bankrupt, the consortium reversed course and asked Google to put their articles back in its search results.[25]

Tool: The Competitive Value Train

As the locus of competition expands from rivalries among similar firms to include asymmetric competitors and a firm's own suppliers and

intermediaries, managers need new ways of visualizing their competitive landscape. The Competitive Value Train is a tool I designed to analyze competition and leverage between a firm and its business partners, direct rivals, and asymmetric competitors.

Let's avoid any confusion with two related terms. Porter's *value chain* is a popular tool for examining the various processes that add value to a product or service within a company's own operations (e.g., how the R&D, manufacturing, marketing, and sales departments each add value). The *supply chain* is a widely used tool for modeling the processes across different companies that contribute to a product's manufacture, distribution, and sale. Both these tools focus on operational design.

By contrast, the value train focuses on competition by looking at the leverage between the companies in a supply chain and their potential substitutes and by mapping how a particular product or service reaches a particular group of customers. For a business with many products, suppliers, sales channels, and types of customers, a single value train will show only one thread of its complete operations or business model. But this will allow managers to focus on the competitive and cooperative forces at work in delivering that particular stream of value.

A competitive value train starts with a horizontal train of firms leading to a final consumer on the right. The number of firms drawn will depend on your business model and means of distribution. Following are three broad types commonly seen as you move upstream from the final consumer:

- *Distributor*: Delivers the product or service to the consumer, although it may not manufacture the product or service (e.g., a retailer like Walmart or an e-tailer like Amazon)
- *Producer*: Creates the finished product, service, or offering paid for by the consumer (e.g., an insurance company, record label, book publisher, or laptop manufacturer)
- *Originator*: Creates unique elements or parts of the offering (e.g., a manufacturer producing operating systems or chips for laptops or a musician creating recordings for a record label)

Figure 3.2 presents an example of a simple value train with these three kinds of businesses.

The next element to add to a value train is competitors. Below each business, or "car," in the train, we indicate its symmetric competitors. Above the same car, we indicate any asymmetric competitors.

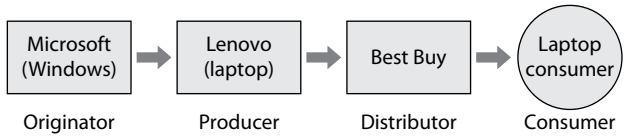


Figure 3.2
Simple Value Trains for Laptop Computers (Without Competitors).

Figure 3.3 represents a competitive value train for books sold through a retailer like Barnes & Noble. The books originate with the author (conceiving and writing the manuscript), who is contracted by the publisher (providing financing, marketing, distribution, and editorial services), and then are sold through a book retailer to the ultimate consumer, the reader. The competitive leverage of Barnes & Noble is shaped by the relative strengths of other physical retail chains and the dominant e-tailer, Amazon.

Understanding Competition as Leverage

By depicting both partners and their symmetric and asymmetric competitors, the value train aims to provide a multidimensional view of competition and cooperation.

Think of the newspaper industry. The *Washington Post* and the *New York Times* newspapers are clearly symmetric competitors—they provide similar value to overlapping readers. However, the biggest competitive threats to each newspaper may lie elsewhere.

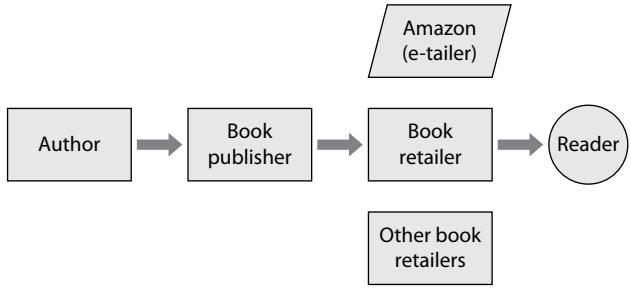


Figure 3.3
Competitive Value Train: Books Sold Through Retailers.

As we have already seen, as Facebook inserts itself between the newspapers and their readers, it is gaining competitive power as an intermediary (figure 3.4a). At the same time, classified websites have disintermediated the newspapers in the path from advertisers to readers (figure 3.4b). Lastly, these newspapers may face a threat from the reporters who write their articles (figure 3.4c). In the digital age, star journalists are able to cultivate brand visibility directly with their audience, particularly with the use of social media. Writer Ezra Klein quickly developed such a huge following as a political policy blogger at the *Washington Post* that the editors were reportedly loathe to critique his columns. Although the leadership of the paper supported Klein and tried to keep him on as a star employee, he eventually left to serve as founding editor-in-chief at a new digital-first news venture, Vox.com. The same process has been seen with several other star journalists in traditional media companies.

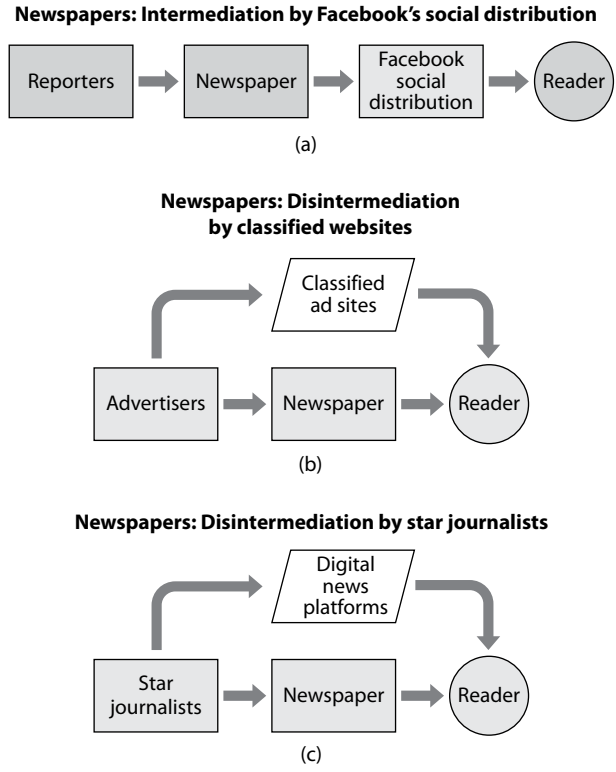


Figure 3.4
Value Train Analysis of Three Competitive Threats to Newspapers.

The value train can be used to examine all three of these competitive dynamics for newspapers and the critical questions in each case: Who has leverage in the relationships in the value train? Where is disintermediation happening or possible? Where is intermediation happening? Looked at through the lens of the value train, it becomes clear that the goal for any business is not simply to defeat, or even outperform, its direct competitors (e.g., the *Washington Post* vs. the *New York Times*). The overriding competitive goal is to gain more leverage in its value train.

Two Rules of Power in Value Trains

More generally, we can identify two broad principles that determine who tends to gain power within value trains.

PRINCIPLE 1: POWER TO THE UNIQUE VALUE CREATOR

At every stage in the value train, each business needs to create unique value in order to exert competitive leverage on its partners upstream (to the left) and downstream (to the right). The more a business is able to distinguish itself from both symmetric and asymmetric competitors at its own stage in the value train, the more bargaining power it will maintain with its own partners and customers. All news publishers are losing influence to Facebook, but those whose products are more of a commodity have much less leverage than a publisher like The New York Times Company, which has continued to maintain a differentiated brand in the eyes of readers. Similarly, most reporters do not have the differentiated value to be able to disintermediate their own publication. It is the unique value of a writer like Ezra Klein (in the eyes of his readers) that gives him leverage over his publishers. Unique value can come from a variety of sources: intellectual property, brand equity, network effects, anything that creates additional value for the final customer in the value train.

PRINCIPLE 2: POWER TO THE ENDS

As industry redefinition leads to more asymmetric competitors, power in value trains is moving to the ends, where there is less opportunity to be skipped over by business partners. In a value train, the first creator and the

final distributor to the end consumer each have additional influence by virtue of their positions. By contrast, the parties in the middle tend to be boxed in and lose influence relative to the creators and end distributors. Examples of original creators who gain more leverage are star journalists and brands manufacturing in-demand products (on the left side of the value train). Examples of strong final distributors are Walmart in physical retailing and Facebook as a media distribution layer (at the right side of the value train). This power imbalance was described in manufacturing by Acer founder Stan Shih's "smiling curve": profits are inevitably captured by the companies that originate key patents and those that brand and distribute products, but the fabricators and manufacturers in between them languish in a valley of low leverage and profitability.[26] Almost all digital platforms—whether Airbnb, Facebook, Google, or Apple Pay—seek to secure a position as the final interface to the end consumer because of the competitive leverage that it confers.

Applying the Competitive Value Train

You can use the tool to predict and assess possible moves by partners, competitors, and new entrants in your value train. You can also use it to analyze possible competitive moves that you are considering. It is particularly useful for understanding the dynamics of disintermediation and intermediation as well as any shifts in the relationships between your firm and its sales channels or its suppliers or both. This can include a business leapfrogging over its current partners—for example, launching a direct-to-consumer business to become its own distributor.

Figure 3.5 shows value train analyses of two examples seen earlier in the chapter. The first shows HBO's decision to launch a direct online service for viewers (branded HBO Now), despite the continued importance of cable companies as HBO's distributors to most consumers. The second depicts Allstate's acquisition of Esurance, an asymmetric competitor of its own affiliated insurance agents, while continuing to sell through the agents under the Allstate corporate brand name.

You can analyze other plans for intermediation, disintermediation, or channel substitution similarly in order to forecast their potential impact on competition and cooperation between firms.

A detailed guide on how to draw, and use, the Competitive Value Train can be found at http://www.davidrogers.biz under Tools.

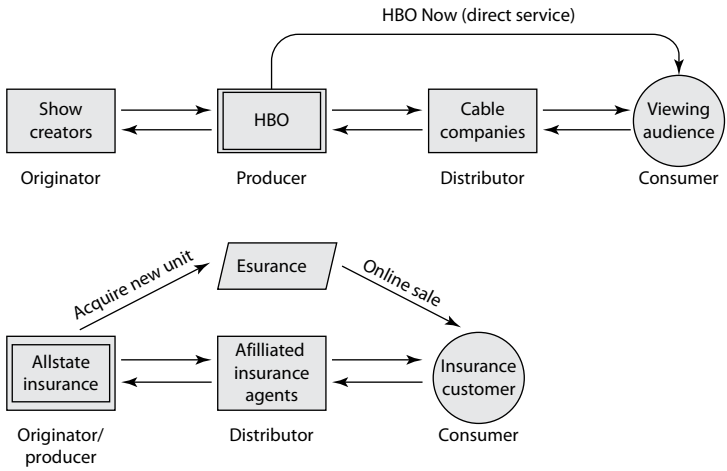


Figure 3.5
Value Train Analysis of Competitive Moves by HBO and Allstate.

Organizational Challenges of Competition

As businesses adapt to the growing importance of platforms and the shifting landscape of competition and cooperation between firms, many of the challenges that arise are not just strategic challenges but also organizational ones.

Shifting Roles Midstream

Reshuffling the roles and relationships of a company's value train can be difficult for an enterprise that has a long-standing business model and relationships with both upstream suppliers and downstream distributors. *Channel conflict* is the common term for the situation where a business is balancing both working with a key sales channel and going around it. Shifting channel strategies is particularly difficult for a business because of its vested interest in existing channels and the risk of cannibalizing its current sales in pursuit of a new opportunity.

The trade-offs are quite real. When e-commerce first offered the promise of selling directly to consumers, many brands embarked on plans

to set up their own online stores. Most failed due to lack of sufficient demand (consumers didn't want to go to a different website to replace each item in their wardrobe or cabinet), lack of technical capability (to create a great online shopping experience), or both. Levi Strauss shifted course after spending millions of dollars on its e-commerce plans and chose to partner with traditional retailers like Macy's that were building online stores selling multiple brands.[27] Only later did Levi Strauss return to launch its own online channel. Other companies, like furniture maker Ethan Allen, have opted to use their offline sales partners to support order fulfillment for products sold directly to consumers. This allows them to establish an online channel but keep their existing offline partners invested.

When companies do launch a direct-to-consumer channel in competition with their primary sales channel, they need to establish clear boundaries. These may be geographic boundaries: some insurance companies that rely on sales agents have initiated their first direct-to-consumer sales in geographic markets where they are not well established. Another kind of boundary can be provided by branding: when Allstate purchased Esurance, it opted to run the direct-to-consumer business as an independent unit under a different brand.

Warfare Mentality

Both co-opetition and the search for leverage in value trains require leaders to look at competition as more than a zero-sum contest.

In organizations where the "competition is war" metaphor and mindset run deep, cooperating with rivals and competing with partners can pose a cultural challenge. When Doreen Lorenzo, former president of Frog Design, first took the helm of that company, a peer gave her a book: Sun Tzu's *The Art of War.* "I don't want to sound like a baby boomer," Doreen told me, "but sometimes, war is not the answer. Or not the only answer."

Sun Tzu is not alone. Among the many bellicose management guides published are books such as Wess Roberts's *Leadership Secrets of Attila the Hun*. That scorched-earth conqueror is famed for quotes such as "There, where I have passed, the grass will never grow again."

There are certainly times for fierce competition with rivals. But to succeed in the dynamic ecosystem of business today, leaders need to

know when to fight and when to make peace. The creators of PayPal certainly learned this. They actually started out as the leaders of two bitterly competing start-ups, Confinity and X.com, with mirror-image products. "By late 1999, we were in all-out war," writes Peter Thiel, who goes on to describe 100-hour workweeks gripped by a mania of competition. "No doubt that was counterproductive, but the focus wasn't on objective productivity; the focus was defeating X.com. One of our engineers actually designed a bomb for this purpose. . . . Calmer heads prevailed." Finally, in 2000, faced with a rapidly deflating tech bubble, the founders of the two companies met on neutral ground and negotiated a 50–50 merger. "De-escalating the rivalry post-merger wasn't easy, but . . . as a unified team, we were able to ride out the dot-com crash and then build a successful business."[28]

Openness

One of the biggest challenges of a platform business model is letting go of some of the value creation process. By their nature, platforms grow by letting their distinct outside parties each bring their own value to the platform and interact with a substantial degree of independence. This requires a hands-off approach that may not be possible for some leaders or some company cultures.

The most valuable platform business in the world struggled mightily with this. Apple and its founder, Steve Jobs, had always distinguished themselves with an exacting focus on controlling every aspect of the customer experience for products like Macintosh computers, iPod music players, and the iTunes music store. Their seamless integration seemed to hinge on Apple's maintaining absolute and total control.

When the iPhone first launched, the company followed this same philosophy: everything was designed and built by Apple. In its first year, users immediately recognized the power of the computer sitting behind the iPhone's glowing touchscreen, and hackers began "jailbreaking" their phones so they could experiment and add new programs of their own design. Apple was faced with a decision: fight back against the hackers (who were, in fact, Apple's early adopters and avid customers) or shift course and provide tools for outside developers to program directly for the iPhone. Jobs's uncharacteristic reversal led to the release of the software

development kit that launched the App Store. This move sparked incredible innovation, turned the iPhone into a platform business, and led Apple's growth into the most valuable public company in the world.

For leaders navigating today's shifting landscape of competition, knowing how open or closed to keep their business model is critical.

To operate successfully in the digital age, businesses must have a dynamic understanding of how firms compete and cooperate. Rather than a simplistic view of bitter enemies and unalloyed partnerships, businesses need to see all their interfirm relationships as a shifting mix of competition and cooperation. They must understand the value of cooperating with direct rivals, the threat of asymmetric competitors who look nothing like them, the importance of leverage within their relationships with partner businesses, and the power of digitally enabled platform business models to bring together different parties and drive new value creation.

Relationships with other firms, in short, have become just as networked and interconnected as relationships with customers. In both relationships, the increasing digitization of interactions is yielding another product as well: data. Every interaction with customers or with businesses is producing streams of information that can now be recorded, captured, and analyzed in ways that were impossible only a short while ago. Understanding how to utilize this data strategically, as a source of new value for businesses, is the next important domain of digital transformation.