

## Economic and Legal Structures

Nancy has always loved what she does. As the owner of a jazz record store, she meets all kinds of interesting people, and visitors even come from out of town to check out her collection of old albums from the 1920s. However, in the past few years, things have been tough. People have started buying music off iTunes, and her sales have dwindled. Doesn't anyone appreciate album art anymore? One day Nancy hears that the bookstore down the street is doing a good business online. "What have I got to lose?" Nancy thinks, as she sets up her eBay account to sell some Miles Davis and Billie Holliday. Soon, things have taken off in a big way. She has doubled her sales and has buyers from all over the world (who knew people in Japan were this into jazz?). Nancy starts chatting with a few of them through the seller comments. They have a lot of the same interests, and the people she is talking to certainly want to know more. Things are going so well that she decides to stop paying eBay a commission and just set up her own shop online, complete with a platform for discussing old records and posting clips of music from them. She needs not only people who have clips to upload, but also people who are looking for clips to download. She gamely sets up this feature, and it is a big hit. She is selling more records, and she even starts making money from advertising. Maybe she won't have to quit the business after all! Things are going great when one day she gets a cease-and-desist letter from one of her favorite record companies. People have been remixing the clips for old silent movies on YouTube. Nancy sighs. Maybe she shouldn't quit her day job.

Chapter 14 provides a broad overview of the ways that social media has become integrated with economic life and legal structures. The costs of producing, distributing, and storing information have decreased dramatically over the past few decades and have prompted a number of shifts in commerce, particularly in knowledge and culture industries such as music and film. Social media platforms play an important role in the formation of fan communities and in how companies track the success of their products. They offer a way for consumers to share and create their own content, often in violation of copyrights laws, as well as a way for companies to capitalize on consumer-created products, many times without paying for them. In this chapter, we will cover several concepts in economic theory such as marginal cost, network effects, and two-sided markets and use these concepts to understand changes in consumer practices, business models, and legal

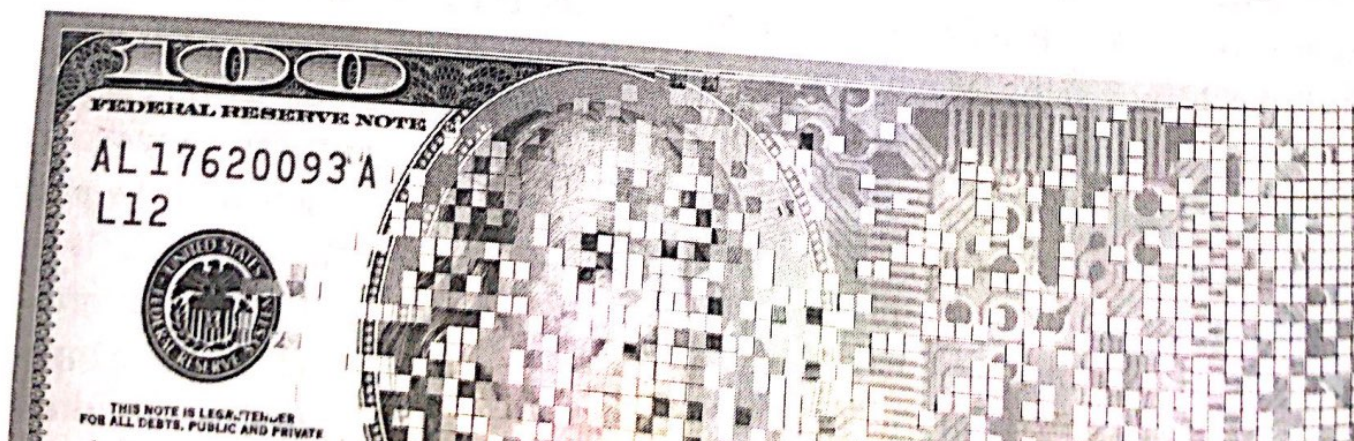


structures for selling and distributing goods, services, and information. As a result of the shifting economic and technological landscape, the boundaries around cultural and knowledge-based properties that used to be tethered to materials like books and albums have also been challenged. In this chapter, we will therefore also cover copyright law and its challenges to legal theory and practice.

Unlike the treatment of co-creation in Chapter 5 and social media marketing found in Chapter 11, this chapter on economic life takes a broader approach, looking at shifts in media production and future directions for economic growth. The Internet and digital technologies have touched off changes in many industries. However, the boundary between changes related to the Internet and digital technology—bandwidth, storage, and processing speed—and those related to social media—collaborative production, sharing, and co-creation—are not always clear. For the sake of brevity, this chapter will first briefly review broad changes related to the Internet before focusing more specifically on the particular economic shifts engendered by social media itself. Throughout the chapter, we will examine some of the consequences of this shift for regulation and policy such as copyright law and net neutrality.

## SHIFTS IN ECONOMIC STRUCTURE

To understand social media's impact on economic life, it is first necessary to consider the changes that gave social media economic importance in the first place. For example, it would not be possible to upload a video of your favorite performer taken on your phone without cheap technology for storing large amounts of information, social and legal norms that allow such uploading, and networks of others engaged in similar acts of publication. The development and diffusion of digital technology and the Internet have prompted three major shifts that have transformed traditional economic structures and given social media economic value: decreasing costs of technology, blurred ownership of digital objects, and networked exchange (Benkler, 2006). This section will examine the consequences



of these three shifts for economic life before examining their meaning for understanding social media.

### Decreasing Costs of Production, Storage, and Dissemination

The first, most sweeping change is that the costs of production, consumption, and distribution of information have radically decreased in the past two decades (Benkler, 2006). The costs of storage space, bandwidth, and processing power have all fallen over time. Intel's president, Gordon E. Moore, was the first to observe that the processing speed of computer chips doubles every two years (1965). This pattern, called **Moore's Law**, has proven true for at least thirty years, although it might not prove true forever. The capacity of storage space and bandwidth have similarly increased, leading to a decrease in their costs (Benkler, 2006).

This decrease in the cost of production, transfer, and storage of information has had several implications for economic life, some of which are still unfolding. The widespread availability of tools such as networked computers that can be used to produce texts, videos, and music has prompted a "radical change in the organization of information production" (Benkler, 2006, p. 1). Whereas the startup costs for a printing press, a television station, or a recording studio were once quite large, one can now obtain the means to produce and circulate texts, videos, or music for a few thousand dollars. The costs of producing the first copy of a book, software, or innovation are called the **fixed costs**, and for entrepreneurs, this means that the costs of entering certain markets can be considerably lower. Fixed costs may now be slightly lower because of these effects, but they are still nowhere close to zero.

The adoption of digital technology can mean that the **marginal cost**, the cost of producing and distributing one more of the item, is considerably lower as well. For example, whereas a physical book costs about \$3.25 to print, an eBook costs considerably less per copy.<sup>1</sup> Yet fixed costs are still about the same. Paying the writer, copy-editor, and jacket designers has not significantly changed. One study shows that consumers feel justified in pirating something that has low marginal costs, but perhaps high fixed cost (Nunes, Hsee, & Weber, 2004; Xia, Monroe, & Cox, 2004). It is easier for people to think of the "cost" of a book as what it costs to produce one more rather than to think about the cost of producing the first one.

To understand why the decreasing cost of processing, storage, and bandwidth would affect anything, we will start with the idea of a good. An economic **good** is any object that satisfies a human need or want (Varian, 1992). Goods can be privately held, public, common, or jointly owned. As the price of a good goes down, people can (and usually do) buy more of it. However, if a good is cheap, there is little incentive for a company to produce it. The same applies to services. For example, if someone has the capacity to give a great haircut, she can charge a lot for it. But as more people learn this skill, the price will go down because the service is more readily available. In most markets, value comes from scarcity.



Scarce goods tend to be more valuable because there are fewer of them and more people competing to buy them. For example, diamonds are relatively rare (compared to, say, sugar), and so they cost more per ounce. This basic insight, that price is determined by supply and demand, is generally called the **economic theory of value**.<sup>2</sup>

In many ways, information as a good has become plentiful and therefore cheap. For example, if you want to know who won the 1986 World Series, you do not have to buy a sports almanac or take the time to visit the library, but can simply look up the information on Wikipedia for the cost of your regular Internet access (I will save you the trouble: it is the New York Mets). Information is plentiful, which means that you are not likely to pay someone to answer this question (although as discussed in Chapter 7, it will require you to buy or access a computer or mobile device and have the literacy to find the information at a site like Wikipedia). So information is relatively plentiful and accessible—perhaps more so now than any other time in human history.

But recall what we learned in Chapter 4 about attention. Attention is scarce, which means that the curation and filtering mechanisms for this information become more valuable as information itself becomes more plentiful (see Davenport & Beck, 2013; Simon, 1971). Thus although search engines make it possible to access information, filtering and curating information still has a lot of value, and social media plays a role in such filtering. For example, if you want to know the best place in town to eat, you can find the location, hours, and menus of virtually every place online, but to make a decision, it might make more sense to ask your friends—who are the most like you—or consult online reviews by strangers. This filtering, then, can come to have value because it saves you time and sometimes wasted money.

### Blurred Rights of Ownership

The speed at which computers transfer and process information has gotten faster; storage capacity has dramatically increased, and cultural products like music and movies as well as medical, geographic, and scientific knowledge have therefore become dramatically easier to access. But has this actually changed anything about these goods as products themselves? It turns out that the ability of people to access and store information has also challenged some of its more basic boundaries. Although we may think of ownership as one legal right, it is actually a bundle of three rights: the right to use, the right to exclude others from using, and the right to transfer these two rights to someone else (Reeve, 1986). When someone owns a physical object, these rights are easy to bundle. If you own a car, you can decide whether to use it, can exclude others from using it, and can decide when to transfer those rights. **Enclosure** describes the process of putting boundaries around property to ensure these rights (Boyle, 2003). Enclosure is easy enough for a plot of land or your beloved car. However, digital objects are a little different. First, they are **nonrival**, which means that using them does not decrease the value to others. For example, reading an article on *Huffington Post*



does not alter the content of the article, and so it is just as valuable to the next reader. Or if you look through your friend's pictures on Facebook, they are still there for someone else to see. Information in this sense does not become depleted when used. In contrast, if you buy a sandwich and consume some of that sandwich, it has considerably less value to the next person!

Second, digital objects can be more easily transferred than previously. This reduction in **transactions costs** (Williamson, 1979), or the cost of exchanging a good, which can include shipping or the physical or mental effort of making a transaction, means that people are more likely to exchange material like songs, news stories, or photographs if bandwidth is large and storage is plentiful. Consider the transaction costs of taking and sharing a photograph twenty years ago. Showing someone a picture required film, a camera, a visit to the film developer, and then being physically co-present with someone or using the postal service. Now, transaction costs for sharing a photo amount to snapping a picture, uploading it to a website, or emailing it to a friend. The transaction costs for music fell precipitously when people were first able to transfer it for free using services like Napster and Limewire (ancient history—but ask your parents). Profits from the music industry fell, and the industry was slow to respond with a new business model (Giesler, 2006, 2008). Although transaction costs for obtaining information goods like a song or movie are now lower, they are still not negligible because one must purchase electronic devices and access to networks, invest time in search and download, and perhaps risk punishment if the transfer is illegal. Yet this shift in transaction costs has fundamentally changed the music industry. Apple, for example, sells songs on iTunes, and Amazon has fought to take a cut of publishing profits from the sale of ebooks.<sup>3</sup>

Another important trait of knowledge and other social media content is that it is often considered a **public good**. A public good is one that anyone can use. When a public good is shared by a group of people, it is called a **commons**. Keeping and cultivating a commons is tricky business and one that has fascinated economists for decades. From an economic point of view, people should have no incentive for contributing to a commons. Why spend time writing a Wikipedia article when someone else will do it? Why waste your time without getting paid? Further, if a resource is available for everyone to use, then people may feel less responsible for maintaining it, primarily because of the social phenomenon called diffusion of responsibility we discussed in Chapter 10. Appropriately enough, this tendency for groups of people to overuse and neglect collectively held property is called the **tragedy of the commons**. That is, it is a tragedy because something that seems so plentiful can be quickly overrun if everyone exploits it (Hardin, 1968). For example, bandwidth is a shared resource, yet if everyone uses it at the same time to download large files, the resource can quickly become scarce, particularly during peak times of the day or night. For this reason, hotels have started charging for “premium” Internet access for those who want to stream movies, and some speculate that broadband providers may follow suit by “metering” Internet use (Alor-Hernandez, Chavez-Trejo, Pelaez-Camarena, & Gomez, 2006).



Historically, Internet access has been neutral in the sense that all data on the Internet are treated equally, no matter its sender, receiver, or content (Wu, 2003). Many see this principle, called **net neutrality**, as vital to maintaining the public interest and preventing monopoly (Lessig & McChesney, 2006; Wu, 2003). Based on the same precedent as telephone service called “common carrier” laws, this net neutrality structure is normative but also protected by agencies like the Federal Communications Commission, who confirmed their position that the Internet should be regulated like a utility by a three-to-two vote in 2015 (Rebecca & Lohr, 2015). The fact that anyone can access the Internet for the same cost (as long as you have the right equipment) has led to unprecedented entrepreneurship and innovation. Many argue that if this were to change it would stifle development and innovation and allow those who own the “pipeline,” companies like Comcast and Time Warner, to exert monopoly power in pricing (Lessig, 2004). The interplay between public goods and commercial development is precarious because many companies use public resources for commercial purposes. For example, the interstate highway system—expanded in 1956 by President Dwight D. Eisenhower—provided efficient trucking routes for companies in the United States. Many argue that the Internet, as a “highway” that everyone uses, is the same kind of public resource that should be protected.

However, consider what we learned in Chapter 10 about community norms. Because of social agreements and informal pressures, the tragedy of the commons might not always occur. There are a number of informal social (rather than legal) ways to resolve the tragedy of the commons (Ostrom, 2008). For example, in peer-to-peer file sharing, users who download but do not upload take up server bandwidth. As a social check on this, peer-to-peer file sharing communities adopt strong norms about “leeching” and punish leechers by expelling and then banning them from the site (Giesler, 2006).

The tragedy of the commons is clearly an issue for physical goods that can be depleted. But what about informational goods? If a digital good cannot be depleted, what is wrong with sharing it? After all, as lawyer and cultural critic Lawrence Lessig says, “Information wants to be free” (Lessig, 2004). However, if information is free, then how do people who produce and circulate it get paid? And who profits from any value produced by its circulation? The question is hotly debated and considering it requires an examination of copyright.

## Copyright

**Copyright** is a system of laws for delineating and enforcing the rights of intellectual property. Protecting intellectual property involves a tradeoff between public and private interests (Collins, 2010). On the one hand, knowledge can enhance human life and spur developments in science and culture, which is in the collective public interest. For instance, the information offered on WebMD about how to treat a venomous spider bite can increase human welfare, particularly if the information is not widely known. However, on the other hand, if all information is free, some argue, people will not spend much time or energy trying to



produce it because it has no value. And yet people have many other, nonmarket motivations for producing information such as pursuing scientific knowledge, valuing artistic production, helping others, or gaining social esteem and fame (Hyde 1983). In the face of decreasing costs to certain kinds of information, these factors, rather than economic interest, appear to motivate production. We will return to some of the implications of these motivations for business models later in the chapter.

Protecting intellectual property is a balance between collective and individual interests, but it also presents a tradeoff between short- and long-term social gains. Inhibiting knowledge dissemination in the short term may be socially inefficient because information often costs little to reproduce and may be sorely needed by others for their own innovations. However, many have argued that it is important to protect intellectual property in the long term to offer an incentive for people to produce it (Hunt, 1999). This later point that there is long-term benefit to copyright protections has come under scrutiny lately as industries have attempted to lengthen the period of copyright. One analysis of intellectual property policy in sixty countries, for example, finds that stronger copyright protection actually decreased the number of innovations in a country (Lerner, 2009).

So how are these tradeoffs resolved? Not easily, as it turns out. A number of legal and practical provisions provide an unsteady stalemate. For instance, the policy of **fair use** says that small portions of copyrighted material can be used for educational or commentary purposes. Fair use was created to try to resolve the basic tension between the good of the public and the good of the individual creator. Intellectual property can be appropriated for the sake of commentary, education, news reporting, or a variety of other actions in the public interest. Yet there are still bounds on how much can be used and for exactly what purpose.

Another provision is the so-called Mickey Mouse rule, a piece of legislation first introduced to protect the intellectual property of Disney. The Copyright Act of 1976 says that intellectual property is protected from the moment of its creation through fifty years after its author's death or for seventy-five years if it has a corporate author (Public Law 94-553), and this term was extended in 1998 (Public



Law 105-298). This law was meant to protect the economic interests of the creator and yet ensure the eventual passing of knowledge into the public domain. As such, it is an attempt to resolve the tradeoff between short-term individual rights and long-term public good (Benkler, 2006).

Blurred rights of ownership apply not only to companies, but also to consumers. Several scholars have pointed out that companies like Google and Amazon collect, store, and use large amounts of consumer-produced data to provide services like search. What rights do users have to the data they produce? As it stands, none. Solutions to this issue range from schemes to allow you to enclose and then sell your private information (Lanier, 2013, 2014) to proposals to enforce the use of rights-management technologies and facilities on behalf of private users (Linn, 2005). In Chapter 4 we discussed the kind of value that large amounts of data can have for companies like Google and Facebook when it comes to measuring and selling an audience to advertisers. Chapter 5 examined its explicit and implicit creation of value for both companies and users. Clearly, this thorny issue concerns economics, politics, and technology and is still in flux (Morozov, 2013).

### Networked Consumers

As we have seen, the costs of goods have changed, and the boundaries around digital goods have themselves shifted. But what about consumers? The fact that people can easily communicate, work collaboratively, and share digital objects has changed many aspects of economic life. For example, groups of people can collaborate either on things they create themselves or by modifying existing cultural objects. For instance, research shows that group work using Google docs to collaborate is best done when participants give feedback that is specifically about the work, not about the creator (Birnholtz, Steinhardt, & Pavese, 2013). Fan communities and cultures produce cultural texts, talk about modifications to their favorite shows, and gripe about new characters and plotlines. This audience feedback has in some ways changed how the mainstream media operates. For example, shows like *Pretty Little Liars* explicitly depend on consumer input because they incorporate fan suggestions into plots and characters (Keveney, 2013). Chapters 5 and 10 have covered many of these value-producing activities by networked consumers.

One particularly financial form of this kind of consumer coordination is crowdfunding. **Crowdfunding** is when a business idea or project is supported by a large and disaggregated group of people, usually through relatively small donations. For example, Kickstarter is cited as the platform responsible for coordinating fans of the show *Veronica Mars* to fund a movie many years after the show went off the air ("Veronica Mars," 2013). Zach Braff also raised money for his movie *Wish I Was Here* using Kickstarter and was met with a furious backlash (Child, 2013; O'Hehir, 2014). As we discussed in the previous chapter, fan communities will often use political tactics to back their favorite cultural products, and in many cases they will put their money where their mouth is (Earl & Kimport, 2009).



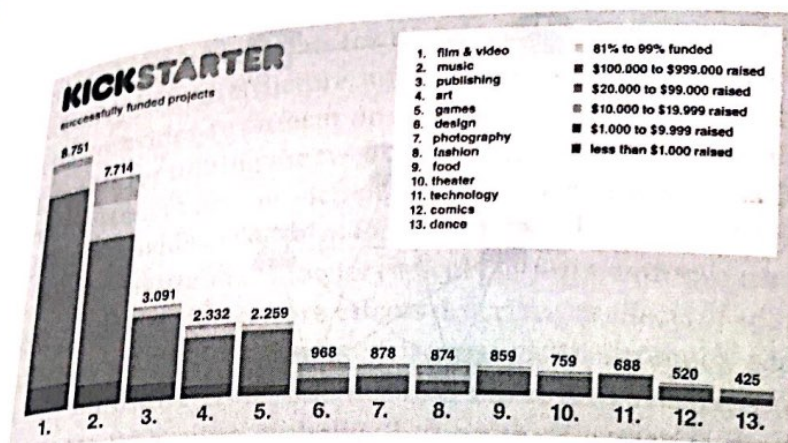


Photo 14.3 Kickstarter Projects, sorted by Quantity.

More broadly, the production of cultural or informational content can be funded by small amounts of money, called **micropayments**, that can be collected from a large number of people and distributed to the content creators. For example, the crowdfunding platform GoFundMe, which processed more than \$470 million in micropayments in 2014, enables individuals or groups to fundraise all over the world in support of their health, communities, education, or charitable goals, among other causes (Hurst, 2015).

However, micropayments can have paradoxical effects on economic behavior. Although they may work when consumers have a passionate interest, micropayments have been less successful for everyday products about which people feel lukewarm (Anderson, 2009). Being free is fundamentally psychologically different from costing one cent (Shampanier, Mazar, & Ariely, 2007), and this is because of transaction costs, the mental effort one might have to expend to complete the payment. For example, imagine that every time you wanted to hear your favorite song, you had to get out a credit card and make an online payment. Or every time you wanted to read a news article you had to enter your credit card information. The transaction costs, in this case the psychological costs of getting out your wallet, ensuring the website is trustworthy, and processing a payment are likely to deter you from buying a simple newspaper article or watching a clip of last night's *Daily Show*. Even if the transaction were relatively frictionless, the mental task of even thinking of spending one cent would make one less likely to watch the show.

### Platforms and the Chicken and Egg Problem

To set up a thriving social network site, you need people. But to get people, you need other people. Recall that when Nancy wanted to set up a music-sharing site, she had to attract both downloaders and uploaders (or at least enough people who do both). How does this type of platform ever get off the ground? Economists call this the **Chicken and Egg problem**, and it is an issue for all kinds of platforms (Evans & Schmalensee, 2010). Economists use the term **network effects** to describe the positive or negative value that additional users have to other users of



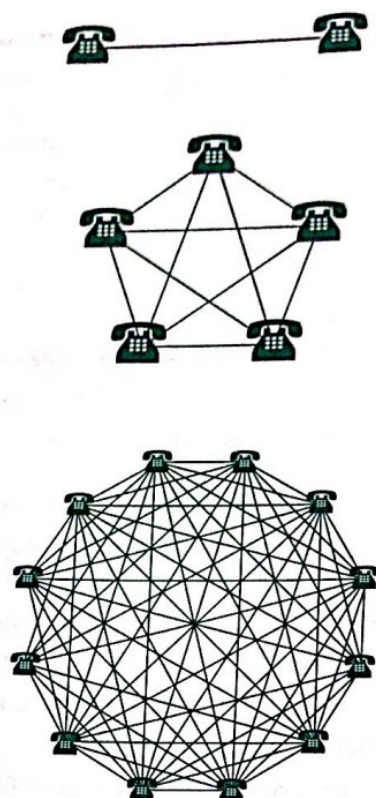


Figure 14.1 Network Effects: Public Domain.

the platform (Figure 14.1). The Chicken and Egg problem exists because of network effects, and understanding network effects is crucial if you want to attempt to solve it.

**Direct network effects** mean that current users get value out of additional users joining. For example, if you are on the old social networking site Friendster, it is not valuable if none of your friends is on the platform. However, as more people are added, there are more pictures to look at, more comments to read, and more messages to send. In this way, more users make the platform more valuable. Direct network effects can also be negative. For example, more users being added to Friendster may cause the service to be congested or may clutter the service with repetitive content, decreasing the overall value (boyd & Ellison, 2007).

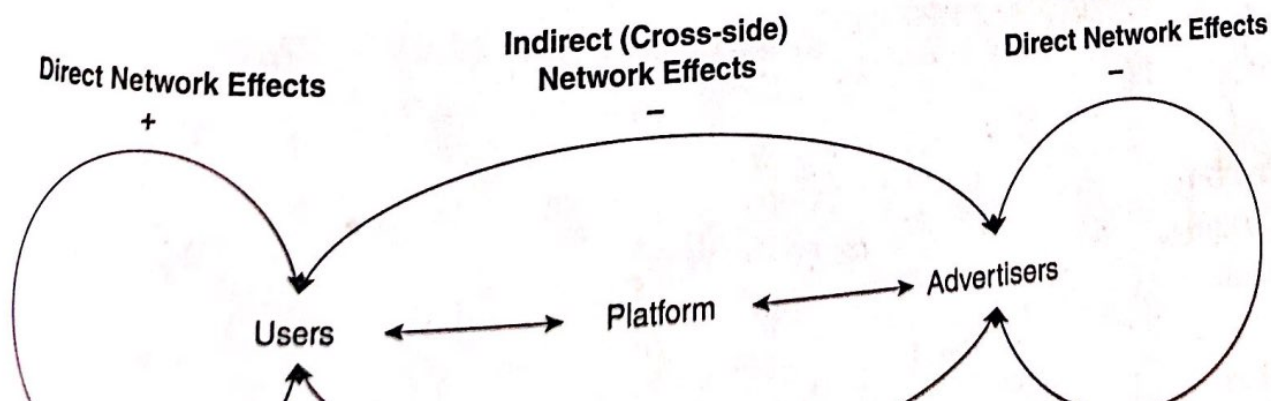
But platforms are not always so simple. Sometimes there are distinct segments of users that can have network effects on each other. Recall the concept of a two-sided market, which we discussed in Chapter 3. A two-sided market provides value by linking two or more groups of people together for economic exchange. The traditional way of thinking about a two-sided market is when a company supports itself through both advertising and subscriptions. For example, on Deadspin, there are advertisers who pay the site and users who visit the site. In this market, there are two groups—a group of advertisers and a group of users. Advertisers fund the production of content, and users provide the



"eyeballs" that may generate a sale for the advertiser. There are many other variants to this basic platform structure, and they are ubiquitous in social media. For example, eBay provides a platform on which buyers and sellers meet, and then eBay charges a fee for uniting the two parties. Task rabbit provides a platform for uniting service seekers and service providers. Uber unites riders with drivers. Even match.com provides a platform for the dating "market," uniting date-seekers (Piskorski, 2014).<sup>4</sup> Figure 14.2 shows a typical platform with two user groups.

Indirect or **cross-side network effects** describe the effects of additional users of one segment on another segment. For example, if Facebook adds 2 million users, this has a positive cross-side network effect for advertisers on Facebook because there are now more eyeballs on the site. However, if Facebook added 2 million new advertisers, there certainly would be cross-network effects, but they definitely would not be positive for users, whose experience of the site would be cluttered with even more advertising.

The trick to managing a successful platform is balancing the tension among the many "sides" of the platform—uploaders and downloaders, advertisers and readers, voyeurs and exhibitionists. Although network effects are not new—they have been studied in the context of telephone networks, credit cards, and newspapers for a long time—they have become much more common; after all, the Internet is a "platform of platforms" (Eisenmann, Parker, & Van Alstyne, 2006). Social media markets—services like Uber, AirBnB, and Etsy—have created many new business models based on the simple idea of a platform. The ubiquity of platforms for sharing cultural content—uniting people who want to listen to songs or watch videos with those who post them—has presented challenges to those wishing to prosecute copyright infringement. If a company wants to punish someone for circulating clips of a television show, but the uploader has disappeared, can they punish the platform? Turns out, no. As long as the platform provider responds to requests to remove the content, it cannot be sued for distributing illegal content. This seemingly trivial distinction protects platforms like YouTube under a "safe harbor" provision in the Digital Millennium Copyright Act (DMCA, Title II: Online Copyright Infringement Liability Limitation Act 1998).

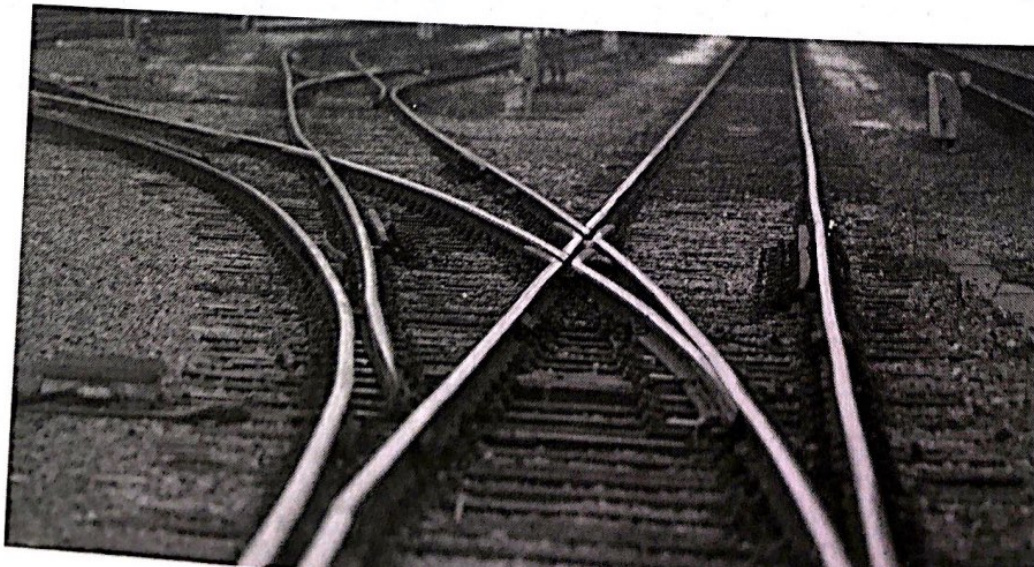


## Monopolies, Switching Costs, and Multihoming

As we saw in the previous section, much of a platform's value comes from its size. The bigger the network, the greater potential value it has to users. But is it right for Google to control 67.6% of the market for search in the United States<sup>5</sup> (comScore Explicit, 2014)? What about Facebook? And will the users of Facebook evaporate from the platform just as they did for Myspace? Economists have been puzzling this out and argue that the answer depends on a couple of factors.

A **monopoly**, when one organization controls most of the market, is usually thought to be a bad thing because the organization has the power to increase prices and reduce quality (if you need an example, reflect for a moment on your cable provider). However, consider what we just discussed about network effects. More customers can be a good thing for everyone. Thus some platforms will tend toward monopoly status, and this might benefit users as well.

One factor that can make a difference on whether a platform has a monopoly is the switching cost for users. **Switching costs** are a specific type of transaction costs, the costs to the user of changing a product or platforms (Evans & Schmalensee, 2010; Schmalensee, 1972). People find switching inherently risky or needlessly time consuming. For example, consider the costs of switching from an iPhone to an Android-based Samsung. You would have to spend time transferring contacts and data and learn how to use the product, and after that, you may not like it. Switching costs can be different for different platforms, however. For example, switching from Bing to Google is not costly, but switching from Mac to PC is considerably harder. Switching costs can also exist on the other side of the market. Consider, for example, seller reputations on eBay. When a seller builds a particular history of favorable ratings from buyers, she can charge higher prices and sell more goods (Haucap & Heimeshoff, 2014). But this reputation score is only available to users on eBay and only exists on the eBay platform. This fact would make any seller think twice before switching to another auction site. Switching costs for some platforms, like your operating system, might be high, but they may be much lower for other platforms, like your social networking or search



site. The ability to use more than one platform, called **multihoming**, also clearly affects the ability of the platform to have monopoly power (Rochet & Tirole, 2003).

## SHIFTS IN ECONOMIC PRACTICE AND PRODUCTION

The major shifts covered in the previous section—decrease in costs, blurred property rights, and networked consumers—have had concrete implications for real products and real markets. This section will cover a few of these implications for innovation and consumer sharing.

### User Innovation

Product development and innovation is one aspect of economic life that has changed because of some of the effects of social media described in this book. Co-creation, the decreased costs of sharing information, and increased availability of materials to produce things have all led to shifts in innovation. In industries ranging from software development to hiking gear to surgical devices, **user innovation** has altered the creation of new products. User-centric (as opposed to manufacturer-centric) design occurs when users—any firm or individual whose primary interest is in using rather than selling the product—develop a new product or modify an existing product, usually to suit their own needs (Von Hippel, 2005). For example, a community of windsurfers in the mid-1970s created boards that could be used for jumping and spinning (Von Hippel, 2005). Mini-motorcross bikes began with a user community that modified bikes originally built for kids (Martin & Schouten, 2014). Studies suggest that user innovation is common; between 10 and 40 percent of users participate in some kind of innovation, depending on the product. For example, about 40 percent of users who participate in extreme sports like hiking modify their gear at some point (Franke & Shah, 2003). About 22 percent of surgeons in Germany report modifying their instruments for more effective use (Lüthje, 2003).

However, not everyone who uses a product innovates with it. **Lead users**, experts who know the product well, are some of the best innovators. These users have a lot to gain by developing better tools, and they also have the extensive knowledge to contribute helpful innovations. Studies show that objects developed by lead users rather than nonexpert users end up being more commercially attractive innovations (Franke & von Hippel, 2003). Innovation or knowledge communities like those discussed in Chapter 9 will often collaborate to produce innovations and freely share the fruits of their labor, both because it can be mutually beneficial to group members and because it is perceived as altruistic. In some cases this community process is called **open innovation**, innovation where anyone can contribute and the resulting ideas and products are freely shared. Many communities like software development groups institutionalize open innovation into the rules for enclosing property. For example, the Linux platform contains explicit provisions that legally prevent another party from taking ownership of the collectively developed product.



Although “freely revealing” information has existed for hundreds of years (Nuvolar, 2004; Lim, 2000; Morrison, Roberts, & Von Hippel, 2000; Allen, Hyman, & Pinckney, 1983), transaction costs for diffusing information are now lower because of networked, digital communication—message boards, online forums, and blogs that comprise the platforms that coordinate community members. A combination of online and offline social events and connections bring these types of group together for information sharing and collaboration (Martin & Schouten, 2014).

However, although innovation communities can improve knowledge products such as software or music, most products still profoundly benefit from the economies of scale of professional manufacturers. For example, although car aficionados may modify their vehicles as a form of expression, their ability to do so is constrained by the product lines of car-parts manufacturers, who possess economies of scale that no amount of social-media networking could ever hope to replicate. Still, exceptions to this constraint can be found in arts and crafts that do not require economies of scale to produce. Sites like Etsy, where users sell homemade wares, demonstrate that entrepreneurs can make and distribute products themselves when facilitated by online platforms.

### Sharing

Sharing goods and services is another shift that has emerged partly as a result of the increased ability to coordinate people through social media tools. **Sharing** is “nonreciprocal pro-social behavior” (Benkler, 2004) in which one or more people pool resources for distribution to others and conversely access resources from this pool for their own use without direct reciprocation. It can encompass a range of practices along a spectrum—from commercial sharing in the case of services like ZipCar to gift-oriented economies such as food sharing, book sharing, and file sharing (Botsman and Rogers 2010). Social media often provides a platform to facilitate sharing. For example, couchsurfing.com coordinates people looking for free lodging with people happy to offer it.

Sharing practices are related to, but distinct from, both commercial exchange and gift giving (Belk, 2010; Dubois, Schor, & Carfagna, 2014). Commercial exchange is when two parties exchange a good or service for money. Although payment can be deferred, it is contractually obligated and enforceable according to a system of legal sanctions. Commercial exchange has long been a part of human cultures, but gift giving is also a fundamental social practice that has structured societies for tens of thousands of years (Mauss, 1954; Polanyi, 2001; Sahlins, 1972). In a traditional **gift economy**, the giver prepares an object for an intended receiver, presents the object in a socially appropriate way, and has no ostensible motive for the gift, although the norms of reciprocity usually indebt the receiver to the giver over a period of time until the gift is reciprocated (Derrida, 1992; Mauss, 1954; Sherry, 1983). This kind of gift giving is called dyadic because it involves two people. Sharing is like commercial exchange in that it is a relatively mundane exchange practice where people exchange common material or cultural resources.



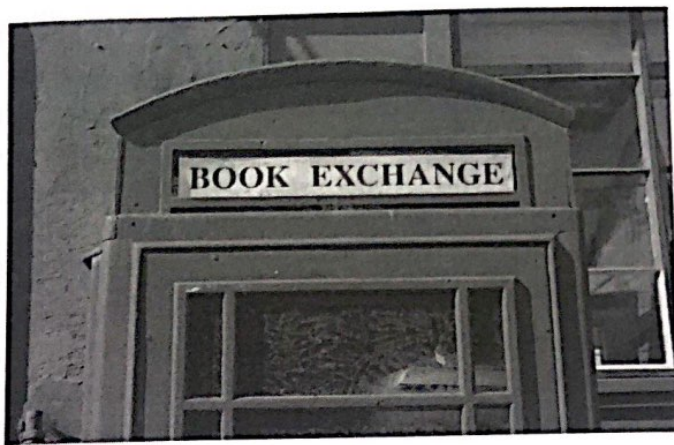


Photo 14.5 Book Exchanges as a form of Offline Sharing.

However, unlike economic exchange, payment is not always required. Sharing is like gift exchange in that goods, services, or information can be exchanged without payment. However, unlike gift giving, sharing tends to involve more than two people, and the norm of reciprocity can be somewhat looser, although perhaps not completely absent. As one scholar studying fan communities points out, “the digital gift . . . is a gift without obligation to reciprocate. Instead of reciprocity, what the gift in the digital age requires for ‘membership’ into the fan community, is merely an obligation to reply” (Booth, 2010, p. 134). Instead of being dyadic as in gift exchange, it is **rhizomatic**, meaning social connections are not just one to one, but rather fan out in an exponential pattern similar to what we saw in our discussion of social networks (Giesler, 2006). These systems, also called peer-to-peer network exchange, facilitate sharing of information or cultural products. Studies of file sharing show that those who download from a resource are usually expected to share their own files. Taking without giving violates a norm well known to sharing communities, as we saw in Chapter 9. However, unlike gift giving, reciprocity in sharing communities need not necessarily be one to one. The norm of reciprocity in sharing can be satisfied by contributing one item to an extensive pool of resources (Giesler, 2006). In one experiment, researchers found that the majority of movie downloaders (75%) shared their files, although there was no monetary incentive to do so and sharing even involved heightened risk of legal penalties under copyright law (Schade, Nitschke, & Sattler, 2005).

Certain kinds of objects lend themselves to sharing. Goods that have excess capacity and those that are commonly and privately owned are likely candidates for communal arrangements (Benkler, 2002). For example, if you own a computer, it likely sits on your desk or couch for most of the day without being used, when in fact this excess processing capacity could be donated to a project like SETI@home, a program that uses networks of home computers to look for extra-terrestrial life (Benkler, 2004). More commonly, your car has excess capacity that could be used by others if you were to share access to it. Lawn equipment, books, yards, apartments, and toys are all physical goods that find themselves amenable



to sharing, and many of these sharing arrangements are coordinated by social media platforms (see, e.g., Ozanne & Ozanne, 2010).

Yet, sharing can also be a threat to intellectual property and challenge other legal structures such as zoning and permitting laws. Despite much debate (*The Economist*, 2002), some research has shown that file sharing can cut into movie theater revenue (Hennig-Thurau, Henning, & Sattler, 2007; Liebowitz, 2006; Michel, 2006; Montoro-Pons & Cuadrado-García, 2006; Peitz & Waelbroeck, 2004; Zentner, 2006). For instance, in a survey of German movie goers, about 19% of those surveyed had downloaded a movie, and about two-thirds of those watched their download. By looking at movie-going intentions prior to downloading, researchers found that file downloading decreased the probability that the consumer would see the movie in the theater (Hennig-Thurau, Henning, & Sattler, 2007). However, there is a silver lining for those selling DVDs. People who had downloaded a copy of the movie but had not watched it were more likely to buy the DVD. These researchers estimate that in Germany, file sharing accounts for a 12.6% decline in revenues, but that does not fully account for the observed 16% decrease, thus supporting claims that the movie business has bigger problems than mere piracy.

However, in many cases, offering something for free critically supports promotion of a product and can expand one's audience enough to offset any losses. As we will see in the next section, freemium business models and online file sharing can also provide a lift to experience goods such as music or video games by providing a free sample and thus decreasing risk of trial (Gopal, Bhattacharjee, & Sanders, 2006). Sharing can clearly enhance network effects, helping some products to get off the ground and thus solve the Chicken and Egg problem. So how is one to know when to encourage or discourage sharing? This question has inspired new business models that attempt to profit from the widespread sharing of information.

### Business Models for Social Media

In response to these clear and obvious transformations in economic life, new ways of making money from information goods and social media practices have come to the fore. In this section, we will examine just a few of the models that have been adopted by companies in a number of domains.

As companies and other organizations tackle the economic transitions discussed in this chapter, at least five ways to make money from noncopyrighted material have been proposed and tested (Benkler, 2006). First, some organizations seek government or extramarket support through foundations, patrons, or nonprofit organizations. For example, podcast networks like Radiotopia benefit from grants from organizations like the Knight Foundation. The National Endowment for the Arts provides funding for interactive digital projects like funding Poets.org, the website for the leading poetry journal, *American Poetry*, to incorporate user-generated content, and the National Science Foundation sponsors radio and podcast programming like Radiolab.

The second business model, the so-called **freemium** model, involves offering a free version of the product to encourage trial, with the hopes that some



percentage of users convert to a paid version or to buying related services and goods like concerts or appearances rather than the content itself. For example, Dropbox developed a successful freemium model based on a referral program. Users could use the platform for free with some *de facto* amount of storage and received extra storage space as an incentive for referring other users. In 2010, about 70% of users referred others, which led to a huge growth in the number of users. By 2013, about 1.6 to 4% of users converted to paid membership, yielding a lot of revenue (Teixeira & Watkins, 2013). Spotify, with a conversion rate of 20%, is also considered a successful example of the freemium model. The basic principle of freemium pricing is related to the attention economy discussed in Chapter 4. Offering a free product expands the audience dramatically, such that a platform can make money even if only 1% of those trials become paying members (Teixeira & Watkins, 2013). Seventy-seven percent of apps in the Apple store in 2013 used the freemium model. In many cases, content producers can earn money through the same platforms used by pirates. The band Radiohead, for example, let fans pay what they wanted for an album, earning significant profits despite the many free downloads (Warner Chappell Records, 2008). Monty Python set up a free YouTube channel to rival fans who were disseminating copies of their videos online, and within weeks, Monty Python's DVDs rose to #2 bestseller on Amazon (Anderson, 2009).

The third, and most common, business model is a commercial sponsorship model that funds activities through advertising. Although this is how platforms like newspapers have operated for decades, the idea is also now used by social media celebrities like Michelle Pham, who gained sponsorship from Lancôme and Dr. Pepper and blogs like *TechCrunch*, *Grantland*, and *Mashable*. Although commercial sponsorship is one of the easiest and most intuitive business models in social media, it does come with some pitfalls like loss of authenticity, as discussed in Chapter 11.

A fourth, increasingly important business model has arisen from companies with access and control of user data. Twitter, for example, charges for access to its

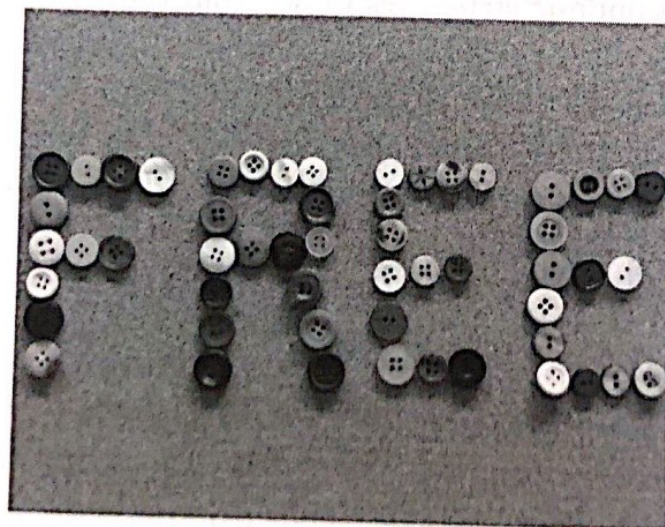


Photo 14.6 Free!



“fire hose” of user Tweets, and companies buy these data for market research. Facebook, with its control over interactional and personal data, sells to advertisers, who use it for segmentation (Maurer & Wiegmann, 2011). As the “big data” approaches discussed in Chapter 4 gain traction among managers, companies that collect and store user data are increasingly looking for ways to monetize the resource. Here, the ethical issues of co-creative activities discussed in Chapter 5 take on new and important meaning.

A fifth business model exists based on an understanding of what social media platforms actually *do*. Mikołaj Jan Piskorski argues that companies should base their social media activities around social failures, those missed opportunities for connection such as structural holes that we discussed in Chapter 9. By understanding why these social failures happen—because of social norms, distance, or personal reticence—companies can better facilitate them by creating social solutions (Piskorski, 2014). For example, Piskorski (2014) describes how LinkedIn provided a solution to job seekers who did not want to violate the norm of looking for a job while employed and to recruiters, who could facilitate a match. Tinder, OkCupid, and match.com overcome similar social failures on the dating market, often for a fee. By operating a platform, these companies coordinate connections that wouldn’t otherwise occur. Further, for companies not interested in operating a social platform, understanding that people want to connect with others (and not be spammed with advertising) can focus managerial thinking on the uses and benefits that people are seeking rather than trying to get attention from people who do not want to give it.

## SUMMARY AND CONCLUSION

This chapter has covered some of the fundamental shifts in economic life spurred by producer and consumer uses of networked digital technology, and social media in particular. It is important to remember that economic shifts do not just happen—they are enacted by people using technology. Although they may be bound by the affordances of particular tools, people adapt these technologies and economic structures to new and sometimes surprising ends. The economic shifts engendered by changes in costs and availability of technology, together with new social practices, have posed challenges for many areas of law and economic practice—from data collection and privacy to copyright and competition in the marketplace. Importantly, these shifts are not just economic, but also political and cultural.

## TOPICS

- Copyright
- Good
- Fixed and marginal cost
- Network effects



- Tragedy of the commons
- Sharing
- Switching costs
- Transaction costs
- Net neutrality

## DISCUSSION QUESTIONS

1. Is it ever OK for a platform to have a monopoly? Why or why not? Compare a platform like Google Search with a social networking site like Facebook. What are the differences and do these matter when it comes to monopoly power?
2. The sharing examples discussed in this chapter seem to involve contexts where people are relatively homogeneous. What are some potential challenges that might emerge when the people sharing are different from each other? Provide an example where this works and one where it fails.

## EXERCISE

Imagine that you have been tasked with setting up a successful platform for sharing recipes. What would you do first? How would you create positive network effects? How would you mitigate negative network effects? Create a business plan for your platform that covers three stages of growth.

## NOTES

1. [http://www.nytimes.com/2010/03/01/business/media/01ebooks.html?page-wanted=all&\\_r=0/](http://www.nytimes.com/2010/03/01/business/media/01ebooks.html?page-wanted=all&_r=0/).
2. There are other important and interesting theories of value that will not be discussed at length in this chapter. The labor theory of value, for example, says that value comes from the amount of labor that is put into the object (which is then sold, thereby alienating the worker from his product) (Marx, 1867). Another theory of value is the cost theory of value, which says that a good's value is the cost it took to make that objects, including the land, labor, and capital (Smith, 1887).
3. <http://www.nytimes.com/2014/05/29/technology/amazon-hachette-book-publisher-dispute.html/>.
4. <http://www.nytimes.com/2014/08/08/business/media/plot-thickens-as-900-writers-battle-amazon.html/>.
5. Interestingly, however, there are platforms that foster repeat transactions such as Uber and others where successful pairing closes the market, as with match.com. Thanks to John Deighton for this insight.
6. <https://www.comscore.com/Insights/Market-Rankings/comScore-Releases-June-2014-US-Search-Engine-Rankings/>.

