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4

SHARING AND SURVEILLANCE

sharing and prosuming in a participatory culture

Many internet and digital media users choose to make and share ideas, information, stories, music, photos, video, and so on. They consider it enjoyable and creative and a big part of the online experience. The result is a *participatory culture* in which members of the public take active part in the creation and consumption of their cultural products and are often expected to share them freely and widely (see Bruns, 2008; Jenkins, 2006, 2009). A participatory culture is also an economy in which content, goods, time, effort, and money are, to one degree or another, shared, exchanged, and spent.

The so-called sharing economy transcends the internet. Companies like Uber and Airbnb have devised ways for such products as cars and vacation homes to be shared or rented instead of purchased. Many digital sites and apps seem free to visit or use, but as we shall see, a bounty of personal information is generally provided during such visits. As people contribute information to websites, blogs, and social media networks, they tell others a great deal about themselves and make quite a bit of personal information public without being compensated in return. Such data, in the aggregate, can make organizations and corporations very wealthy. The word *sharing*, then, ignores the extent to which doing so disproportionately benefits the more powerful among us. Still, content is created and shared in abundance in digital spaces.

We should not assume that people always desire to share their information, however. Sometimes they limit the disclosure of personal information. They may want to reduce the potential for information to be made public, avoid possible interpersonal conflicts, protect their self-interests, or enhance their own images. "Individuals often make strategic choices to limit or restrict information," organizational communication researcher Jennifer Gibbs and her coauthors have established. "Choices to share or not to share knowledge in social media

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applications are likely to be influenced by such concerns" (Gibbs, Rozaidi, & Eisen, 2013, p. 104). Widespread public sharing is not everyone's goal, all the time.

Different kinds of content are often created and shared by different groups of people. According to internet researcher Grant Blank, political content is most often created by society's "elites," while social and entertainment content is often created by "nonelites." Online content, then, is not only different in type but may reflect differences in the backgrounds and perspectives of its creators (Blank, 2013).

In tech-rich societies, so many people produce and consume content like posts, stories, videos, and music that it has become an everyday norm to do so. People (or *makers*) design and make personalized technological products and content, and they consume that of others. Often teaching themselves how to do it, people use social media and blogging platforms, tools available on the internet, and open source software to produce all kinds of content. It is then shared, consumed, critiqued, and sometimes appropriated and remixed by others (see Benkler, 2014).

It has also become common to express one's creativity by remixing and reconfiguring existing content, including music and video. In this remix culture, materials are taken from the pieces of existing texts, whether it is legally permissible to do so or not, and new versions are created. As these new texts are then frequently remixed by others, the processes of production and consumption become merged. The practice became normative due to "implicit permissions, coupled with a background culture of open sharing and rising rhetoric of openness," notes network and legal scholar Yochai Benkler (2014, p. 296). Producing, consuming, and remixing content online has become a defining feature of modern technological life that has resulted in new ways of thinking about what should be legal or illegal, paid or unpaid, public or private. It has, media researcher Aram Sinnreich says, rendered our whole culture "configurable" (2010).

In true postmodern fashion, a combo word has popped up to capture the blurring of production and consumption into a cyclical, sometimes simultaneous, process. Introduced by Alvin Toffler (1980) and since repurposed by sociologists George Ritzer and Nathan Jurgenson (2010), this act is now frequently called *prosuming* or *prosumption*, and the people who do so are known as *prosumers* (see also Ritzer, Dean, & Jurgenson, 2012). The activity is also sometimes called *produsage* (see Bruns, 2008). Combo words like *prosuming* are not just a convenient shorthand but, as with *techno-social*, are also a representation of how fully two entities have fused.

Prosumption has become part of the business model of many companies. To produce as much as possible, as cost-effectively as possible, has long been a primary

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business goal. Companies are highly motivated to increase the efficiency of the production, distribution, and consumption of goods and services so as to generate as much profit as possible. In the first industrial revolution of the mid-1800s, factories were a primary site of production; in the Second Industrial Revolution of the early 1900s, assembly lines added a layer of efficiency. Production processes in many ways define eras and societies.

As the expectation of efficiency in mass production became accelerated in modern technological cultures, it became apparent that if consumers were to participate in the production of goods or services (unpaid, for free!) the profit margin of a business would be significantly enhanced. The company would no longer need to hire as many workers. After a time, consumers might not even expect to have certain tasks performed by waged—or even human—employees.

In many industries, including those developed around internet and digital technology, this is exactly what has happened. Customers willingly participate in the production of the product or service, even as they consume and sometimes pay for the experience. Grocers, for example, once filled customers' orders at food markets, fetching their items and providing fresh-cut meats. Supermarkets now require customers to select their own items and fill their own orders, and, correspondingly, there are now far fewer grocers and butchers to be found. Some restaurants now require customers to work cafeteria-style to obtain their own orders and clean their tables afterward (Ritzer, et al., 2012). Such companies can then employ fewer people, and at a lower wage, since the work to be done by those employees that remain is regimented and easy to train people to do. This, in turn, makes those workers more easily replaceable and (seemingly justifiably, to the management) they are paid less, due to the rote work they are doing. This increases company profits even more, although it depresses the incomes of many employees.

Computerized technology permits the automation of many consumer behaviors that used to require the human touch. Whether one is shopping, banking, or trying to contact someone at a business by phone, it can be difficult if not impossible to find a human being to be of assistance when making transactions or discussing pertinent issues. Rather, consumers are expected to accept responsibility for the tasks involved and to spend time and energy figuring out what to do and how to do it. As companies develop the technological expertise to automate more and more of their online product, consumers have no choice but to accept the setup—or, if they do not accept it, to be left out, especially since it is often impossible to find anyone to complain to about it! Consumers then become like unwitting, unpaid producers—de facto employees—for these companies. They are expected to do much of the company's work for it, and for free.

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Classical sociological theorist Karl Marx has theorized at length that regimented, low-paid work like this is exploitive and can become highly alienating for workers as it cuts them off from more creative, more fully human ways of living (Marx, 1844/2012, 1887). Individuals can spend so much time and energy earning low wages in relatively demeaning environments that they end up spending their whole lives making other people rich and feeling alienated from the products they spend so much time producing but do not even get to use. Inevitably, Marx claimed, workers would become alienated from other people and from their own selves, unable to see that they are part of a system designed for profit and not for their well-being—a system that will never operate for their benefit. Marx's views have remained controversial even in the modern era, as people debate whether the economic system he endorsed—communism—would reduce inequalities or create other socioeconomic and political problems.

As internet users began to create, configure, consume, and spread all kinds of content on the web, user-created, often unpaid (or poorly paid) content became the foundation of many websites and web companies. Social media platforms, such as Facebook, Twitter, Instagram, Wikipedia, YouTube, and a host of blogs and other sharing sites, rely heavily if not entirely on individuals producing content for public consumption. The overwhelming popularity of such sites represents a major shift away from models of understanding media audiences as passive consumers (a model that was becoming outdated anyway) to those in which users are highly active and constantly producing while consuming. They are prosumers, producing and consuming a mountain of content that increases constantly and exponentially.

Why do people create and in effect give away for free so much of their own creative labor? To a certain extent, they may be exhibiting *false consciousness*—they may not realize that to do so benefits the more powerful in society more than they themselves benefit. They may accept without critique the narratives of those of higher socioeconomic status that state that sharing one's information is good and that to fail to share freely is to be left out. Descriptions of the financial benefit to media corporations are generally omitted in the "sharing is good" narratives.

On the other hand, there *is* much to be personally gained by making digital products, creating content, remixing music and video, and the like. It can be a highly creative, expressive, fun activity. In the prosumption process, social connections, networks, and communities can be created and joined, support may be provided, and the "rush of human engagement" can be felt. It can even be a political statement or an act of resistance against a culture or company that

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prohibits or discourages such individual creativity (Sinnreich, 2010). Still, makers can be exploited in ways that may not be immediately apparent to them.

Individuals pay for the digitized experiences they enjoy by contributing their labor and data. This happens even as they simply click around the web, communicating and sharing information with one another. It contributes to a ubiquitous yet largely invisible economy, and "it doesn't look, feel, or smell like labor at all," says media theorist Trebor Scholz. "This digital labor is much akin to those less visible, unsung forms of traditional women's labor such as child care, housework, and surrogacy" (2012, p. 2; see also Andrejevic, 2012).

Nearly everything one communicates or shares online is appropriated, commodified, and sold to companies that want to know more about you, usually so they can target advertising to you. This is the trade-off for the ostensibly "free" internet (which is not really free, anyway—the costs of technology and access are passed along in the form of advertising and higher priced goods, in addition to hardware and access charges). Many are unaware of these costs and trade-offs, however. And it is impossible to totally opt out of the system (see Vertesi, 2014). To obtain needed information, to create and share, to work, to purchase things, to socialize—to do all these things online requires making public one's behavior and content.

There are both advantages and disadvantages to prosumption, as there are to nearly all techno-social phenomena. New business opportunities are indeed available; the internet has made it easier to set up and publicize small "shops" and online venues in which a wide range of things can be made, promoted, and sold. Opportunities to make and remix content, sometimes collaboratively, can be fun and expressive and fulfilling on many levels. But to monetize something is to change its nature and the dynamics that surround it—and internet content is constantly, if invisibly, monetized. "What happens to the culture of digital media if—like most media before it, printing press and radio and TV included—it ends up in the hands of a few powerful interests?" wonders social media researcher Bonnie Stewart, who has written two successful blogs. "The . . . reconfiguration of cultural practices and power relations involved makes navigating the path to becoming a producer as well as a consumer an increasingly challenging one" (2012).

"Media cartels and government agencies are seeking to reimpose the regime of the broadcast era," opines pioneering technology author and critic Harold Rheingold. In such a regime, he states, "the customers of technology will be deprived of the power to create and left only with the power to consume"

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(Rheingold, 2002). Battles over copyright, file-sharing, and other intellectual property issues threaten the openness and neutrality of the web. For the internet to remain a space in which production and consumption of content and enterprise can flow widely, prosumers will need to resist the ways that powerful, entrenched business interests seek to shape and control the technology and business models of the internet and digital media and, indeed, the content and users of the web themselves (Rheingold, 2002).

crowdsourcing

In a digital environment, with the assistance of social media, physically separated people prosume content not just individually but also together. Large numbers of people can now easily gather together online to participate in shared digital activities. In groups—sometimes very large groups—people can collaborate in telling a story, solving a problem, compiling and editing information, funding a project, or doing almost any group-oriented activity that can be imagined.

When several or more people take on or share a task in a distributed but collective manner, physically separated from one another, the activity is called *crowdsourcing* (or, when the task is explicitly oriented toward raising money, *crowdfunding*). Derived from the concept of outsourcing, crowdsourcing exists when tasks or activities are taken on by, or "outsourced" to, a number of people. Crowdsourcing and crowdfunding are activities that represent the collective response and action of a group. They do not necessarily reflect a formal or explicit charge or requirement (see Korthaus & Dai, 2015).

Some say that crowdsourcing returns to the masses a certain level of power. With the ability to find one another in social networks, share information, and contact members of other groups and networks, individuals are given a voice, a platform from which to speak. There is power in numbers, and there is power in digital networks. Then again, as Marx explained (1887), the owner of any organization has so much economic power that it eclipses that of its workers, unless, as Marx suggested, people resist and revolt against the owners and question and reject even the very concept of ownership.

In many groups, a certain collective energy emerges that transcends that of the individual (Durkheim, 1912/1965). This energy can be positive and represent a kind of collective wisdom, sometimes called *collective intelligence.* It can also be negative, when a group turns unruly or destructive. Georg Simmel called the latter "the superiority of the individual over the mass" (1908/1950), describing how in

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groups, especially large ones, people often revert to the "least common denominator" and behave less thoughtfully, more crudely.

Certainly, we see both positive and negative group behavior online. We reap the benefits that crowdsourced knowledge and crowdfunded charitable efforts bring about, even as we see strings of cruel comments and threats made online as well. Crowdsourcing can be best understood as a combination of these extreme viewpoints. It is an excellent way to gather and filter the resources of a group, but it remains prone to the problems that can be experienced in groups—problems that anonymity can intensify (Flanagan, Hocevar, & Samahito, 2014; Hmielowski, Huchens, & Cicchirillo, 2014; Rowe, 2015).

Because the sum of the contributions of a group so often exceeds the contributions that any one or a few people could produce, however, crowsourcing can yield astonishing innovation. Wikipedia, perhaps the ultimate example of crowdsourcing, is not a perfect or unbiased repository of information, but it is an intricate record of the ongoing information-gathering activities of a very large group of people—tens of millions of them, primarily males with strong skills in digital literacy (Hargittai & Shaw, 2015). With its sheer number and volume of topics, as well as its ability to be constantly updated, it has changed, probably forever, what people think of as an encyclopedia. In the same way, sites like Change.org have the potential to alter what people think of as a petition. Once solely distributed through face-to-face and door-to-door activity, petitions that could potentially drive major social change can now be initiated, signed, and presented online.

Other sites feature group comments and ratings on items or services. This kind of collective feedback can be more helpful in assisting prospective buyers to make a decision than a single opinion because it is more likely that numerous individuals' biases will be collapsed within the overall "average" of the crowd's opinion. It has become so popular to comment on and rate items online that this feature is now widely enabled on news stories, entertainment features, items for sale, and so on. Commenting is a satisfying and motivating activity for people who enjoy being part of—and perhaps achieving status in—groups that serve as online information pools (Flanagin et al., 2014).

There is always a possibility that off-topic, nasty, threatening, or abusive postings will result when crowdsourced comments are invited. This generally occurs when respondents are anonymous, the activity is unmoderated, and a range of response types are permitted and are perceived by the community as acceptable (Hmielowski et al., 2014; Rowe, 2015). Some people choose to comment harshly or use the comments section of a site as a personal soapbox or to sell things. But

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crowdsourcing is also a way to gather in the aggregate potentially more fair and unbiased responses to an issue or task than a single individual (or small group) might provide. While some individuals, called *trolls*, may "hijack" a thread and provide extreme, irrelevant responses in an attempt to pull focus away from the thread's original intent, many people are motivated to contribute usefully to the group and take such tasks seriously (Flanagin et al., 2014).

Sometimes the crowdsourced task is to raise money. At this writing, several websites, including Kickstarter.com, serve as a place where individuals who want to raise money for a project, charity, or other activity can appeal to those who might be interested in helping a project thrive. Those who want to kickstart a project post a description of it, along with possible rewards that donors may receive for funding the project at different levels. If enough people kick in, the project is a "go." Many people, contributing very small amounts of money each, can make a real difference, especially in the lives of those who have very little. Kiva.org, for example, is a site where people collectively fund small loans or grants earmarked for individuals who are in great need of the money. Some live in very poor, remote areas of the world and yet can be "found" and substantially aided by relatively small cash infusions to help provide them (or their community) with such necessities as water or sanitation or to help them set up small businesses and generate income for themselves over time. This process is called *microfunding,* and it is another example of the good that can be done by crowdsourcing a project.

Sometimes goods, skills, or time are crowdsourced instead of money. Some communities have set up so-called freecycling days in which people trade or recycle unwanted items in a kind of giant swap meet. Groups have set up bartering systems in which people trade their expertise in one area for someone else's expertise in another area. In such cases, a centralized system of credits can keep track of who does what so that, for example, someone can provide someone else in the community with an hour of guitar lessons in exchange for something like an hour of plumbing or lawn mowing, which might be provided by a different member of the community. For his 2012 film *Fixing the Future*, David Brancaccio of National Public Radio traveled across the United States to observe how these kinds of systems—local business alliances, community banking, and work co-ops—actually work. He noted that in addition to providing a crowdsourced kind of clearinghouse for expertise and talents to be exchanged, they can bring a community closer together by inviting interaction and conversation at all points in the process. Similar to the idea of community gardening (the crowdsourcing of a garden), when people collaborate it is likely that new connections will follow and community will be upheld.

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It is difficult to imagine collaborations like these finding widespread success without the use of the internet and computerized and mobile media to coordinate and publicize the efforts. Interestingly, what often happens when crowdsourced activities are organized via the internet is that face-to-face interaction in the community increases. This is in keeping with the finding that use of the internet is positively correlated with face-to-face interaction—a key finding in the literature on digital social connectedness that is discussed in depth in Chapter 7 (see Chayko, 2014). Keep in mind, though, that no social scientific finding occurs every single time, all the time. Sociological research uncovers and reports trends and patterns but cannot speak to the reasons why a particular individual might act in the way that he or she does except to consider how and why that individual might relate to a general, overall pattern.

As an expression of the desire to share things on the internet, crowdsourcing has become an increasingly common, popular way to share knowledge and resources online. As the web and social media invite discussion, commentary, interpersonal response, and evaluation, they give groups a venue, a space in which to emerge. In the process, these groups can gain power—a means to raise money and awareness, and a voice to speak back to the mighty (Kornhaus & Dai, 2015).

liking and following, and being liked and followed

Are people exploited when they share content and data for free on the web, as Marx might have predicted? Do they become alienated from one another—less able to appreciate the humanity in themselves and others? Or has digital technology changed the contours of the modern world such that the beneficial outcomes of internet and digital media use outweigh the harms?

We take part in a different type of economy, one not predicated solely on finances, when we are online. In this economy, sometimes called the *attention economy*, "attention is the real currency," business and management professors Thomas Davenport and John Beck explain (2001, p. 3). In an atmosphere in which the paying of attention is relatively scarce and much desired, attention can take on some of the attributes of a monetary instrument. "Those who don't have it want it," Davenport and Beck continue. "Even those who have it want more. . . . People work to preserve and extend what they already have" (2001, p. 3).

Online attention can take the shape of a simple glance at a photo or a more active step: a like, a follow, a share, a comment. But attention is also a two-way street. In

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exchange for accumulating likes and follows, it is generally expected that one will like and follow in return, though not necessarily in an even one-to-one exchange. It has become social media etiquette to provide attention to others in exchange for their attention and to prove that you have done so by liking, favoriting, retweeting, or following the other account. Proof that one has the attention of others can be measured in the number of likes or comments a post receives on Facebook, in the number of retweets or followers attracted on Twitter, and so on. When relationships transacted on social media prove to be one-way, or lack reciprocity, unfriending or unfollowing can result (Zevallos, 2011; see Abidin, 2014).

This is, indeed, a kind of economy. Attention is attracted as something shared is acknowledged online. A kind of compensation follows in the form of likes, follows, and comments. More tangible rewards like social connections, jobs, and money can even follow. Other rewards are intangible but can be profound in their impact—approval, confidence, happiness, the feeling that one is special or even loved. Conversely, if their contributions are ignored, people can feel hurt, rejected, or left out. Again, we see deeply human needs and desires expressed in digital environments.

Attention online is subject to increasing returns. That is, the more one has of it, the easier it is to get more. The most well-known celebrities attract attention no matter what they do; in fact, they are followed by photographers called paparazzi. There is an appetite or market for information about them and thus more and more such information is generated all the time. They continually receive attention (and likes and follows) almost no matter what they do. To succeed in such an economy, it helps to create or remix attention-getting content and then to rapidly capitalize on bursts of attention as soon as they occur. This is why one can see the same attention-getting topics mentioned repeatedly, over and over again, in the mass and digital media (Davenport & Beck, 2002).

ownership of online content

It has always been a little tricky to discern who owns what when it comes to people's ideas, or, as it is sometimes called, their *intellectual property.* Credit, and in some cases payment, can only be given to a person if it can be demonstrated that what he or she is writing or saying has been actually devised by that person. It's a complex issue that has been made even more complicated in the age of digital media.

Thoughts, words, and longer creative works have always been to some extent amalgamations of the contributions of a number of people. We generally think in

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the way that we have been taught to do so by those groups that have shaped us, sociologist of knowledge Karl Mannheim explains. "Only in a limited sense does the single individual create out of himself the mode of speech and of thought that we attribute to him," Mannheim observed. "He speaks the language of his group; he thinks in the manner his group thinks" (1929/1960, p. 4).

Individuals have no choice, for example, but to use the language of the groups of which they are a part in forming their thoughts. They also have no choice as to the groups into which they are born and the ways of looking at the world that these groups bestow on their members. People have more choices later on, but thoughts and expressions and even emotions are still largely unconscious processes that result from the assimilation of the symbols, norms, values, and culture of a group. The ways in which individuals arrange their thoughts and ideas can be said to be their own, but even that is influenced heavily by those around them.

People cannot claim others' specific writings and works as their own, however. This is an overreach of personal power. *Copyright* laws regulate intellectual property so that people can be credited for and in some cases paid for their creative work. The concept of copyright actually appears in the U.S. Constitution in Article 1, Section 8, Clause 8, which guarantees Americans exclusive right to their own writings and discoveries, at least for limited periods of time. While general concepts and thoughts (and, interestingly, titles of works) cannot be copyrighted or therefore "owned," specific intellectual contributions are legally protected. But it is very difficult to isolate and quantify such specifics, especially in the modern media environment.

The sharing economy has complicated copyright matters. Lots of information on the internet and digital media is prosumed, crowdsourced, and remixed—created collaboratively by producers and consumers alike, sometimes in large batches. It can be hard to attribute to a specific author information that has been shared or reconfigured in a digital context. Pieces of information can be digitally cut and pasted and spread without attribution from one place to the next. They can be distributed widely via such avenues as tweets, memes, wikis, and blog comments. Some view these processes as not substantially different from the ebb and flow of everyday conversational exchanges, while others view them as something in between formal published works and communal "talk." Either way, they are very difficult to regulate.

Additionally, a *culture of free* has arisen with regard to the internet and digital media use. Napster, a free music-sharing program launched in 1999 by 18-year-old tech entrepreneur Shawn Fanning, was an immediate, explosive internet phenomenon. For two years, users of the program could upload music from their

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own libraries and then pass it along to others for free through peer-to-peer file sharing. But artists were not paid for their musical compositions in this system, and music companies fought back. They filed lawsuits against Fanning, Napster, and even some of the program's users who stored the music files on their own computers. In 2001, courts ruled that Napster had violated copyright laws and shut it down.

Other file-sharing services have come and gone since, and iTunes, and later Spotify, Pandora, and other music streaming services, have provided models by which music can be both shared and paid for (albeit in different ways). "One thing was certain, though," tech writer Clyde Haberman declared. "The culture of free was not going away" (2014). An environment of open information sharing had proved wildly popular among media users. Individuals began to expect to find free or low-cost music, information, and all kinds of services on the internet. And owners of media and technology businesses, unsurprisingly, resisted, and continue to resist, the idea.

Technology had proved capable of providing all kinds of means for people to share, remix, and contribute content via the internet and social media. Media corporations and music companies, in turn, saw their profits and very existence threatened. Rather than adapt to the new environment, they dug in their heels and chose to fight, even to prosecute, these media makers, citing copyright laws that preceded the development of the new practices that the internet and digital media inspired and made possible. The result has been what Aram Sinnreich calls a "piracy crusade" (2013) that can cause harm not only to individuals and small business but to privacy, free speech, and democracy itself, for the widespread shaping of technology is essential for democracy (Volti 2014, p. 17; see also Benkler, 2014).

Plagiarism—the theft of ideas through their incorrect or incomplete attribution or unauthorized spreading—is also on the rise, especially when the internet is used (Birch, 2011). Students, teachers, writers, media creators, and business professionals alike struggle with when, whether, and how a piece of information should rightly be attributed to someone. Sometimes it is difficult if not impossible to determine where an idea originated. Other times, ambiguity is used as a kind of screen behind which these inquiries fail to take place. This has become such a thorny, tangled issue that some have argued that copyright laws developed in a predigital age may need to be changed or abolished lest they quash creativity and innovation (see Benkler, 2014; Lessig, 2008; and Sinnreich, 2013).

To acknowledge this, a nonprofit organization named Creative Commons was developed in 2001 by law professor Lawrence Lessig and his collaborators to give

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people and organizations flexibility in terms of how much control they would like to have over copyright (Plotkin, 2002). Creative Commons licenses permit creators to waive some of their copyright rights and state this clearly. It has been credited with expanding the *public domain* in which creative works can be freely produced, consumed, distributed, and remixed or repurposed at will. Critics, however, are concerned that thinking about copyright in this way may lead to abuses of the system and changes in copyright law that could result in artists not being properly compensated for their work.

It is certainly possible that in the future copyright laws may have limited power or change form radically, and plagiarism may be dramatically recast. For the time being, the onus is on those who quote or paraphrase written work to try to track down the origin of the intellectual property and cite it properly, even if the origin is a tweet, a post on Facebook, a video, a wiki, a blog post or comment, or the spoken word. This ensures that the content creator can receive full credit for it and allows readers to know that written work is accurately and legitimately sourced and more likely to be credible and reputable.

the power to disseminate and publish information

A constant flow of prosumed content, shared widely in various formats, has wrought many changes in the distribution and publication of information. At one time, if someone wanted to distribute printed information, he or she would generally have to hand copy it. As of the mid-21st century, one would have to mimeograph or photocopy paper pages, which could quickly get expensive. Still, pamphlets, newsletters, and zines (small-market, often underground and alternative, magazines) were produced in these ways and distributed by hand or by mail. Larger production and distribution projects have generally required a publisher—someone to evaluate a work's print-worthiness and then take on the task of producing and sometimes promoting it. Until fairly recently, there was no way to produce and access written work on any kind of large scale without going through the publishing industry, which had enormous power over what would be mass produced and consumed.

Similarly, the services of formal businesses were once required for the wide production and distribution of audio and video products to take place. Musicians and filmmakers could record and produce their work independently, but it would be quite costly to purchase the needed equipment and technology to do so, especially if one was looking to achieve a high-quality result. And it was even more

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difficult to make such products available to others, let alone distribute them widely. There was no such thing as downloading music or streaming to an appropriate device; the MP3 files that would allow audio streaming were only invented in 1991, and the first MP3 players were not available until late 1997 (McCormick, 2009).

All of this changed when internet, digital, and mobile media technologies, platforms, and apps became widespread. Now, due to the ability to produce and distribute multimedia content to a potentially wide audience, text, audio, and video are in the hands of everyday users. Many of these platforms (social media, blogs, websites, music-making and video-sharing sites) are do-it-yourself in nature, and the means of production are free or inexpensive and relatively easy to understand and use. Not everyone has an equivalent ability to do this—some people are better at it or have more resources and capital than others. But the possibilities for engaging in and sharing these kinds of creative activities as an independent artist and entrepreneur now exist and are plentiful.

Even books can be produced and distributed more easily and at a much lower cost than was once the case. Technologies that permit a book to be produced, distributed, and consumed electronically (as e-books) are now available. Self-publishing is relatively inexpensive and yields ready access to one's work, even leading in some cases to lucrative traditional publishing contracts. Again, though, this is not equally easy for all to do, and it is not a feasible alternative to more formalized modes of production for all.

Publishing and music industries have been deeply affected by all of this, as have all industries related to the making of creative works, including journalism. As it is no longer necessary to turn to a large company for production and distribution, in many cases these industries have seen their power, profits, and very existence threatened or diminished. The industries themselves are no longer seen by many as essential. Still, they can assist writers, artists, and musicians in many ways, helping them create a professional, reputable product and promoting their work in ways that can be a challenge for even the most resourceful independent producer.

With these internet-inspired changes, there has been a rise in open source publishing. As costs to produce a magazine or newspaper are reduced because much of the product is distributed online, those costs no longer need to be passed along to the consumer. Due in part to Creative Commons licensing and technological advancements that permit the easy and inexpensive construction and publication of web-based content, publishing has become open to independent writers and contributors.

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It is now free or inexpensive to publish material on the internet on many different platforms via open source publishing that provides open access to the product. This is hailed by many as a positive step in allowing individuals to create, publish, and find an audience for their works. It is less popular, of course, among those who tout the many services provided by traditional companies that can ensure a more professional product, such as extensive copyediting and copyright approvals, fact-checking, slick production, widespread promotion, and so forth. Professional journalism and news dissemination have changed dramatically as untrained citizens have begun to take on many of these roles and can share and publish information on social media without a "gatekeeper" (for more on this, see Chapters 5 and 8). Open source publishing is also responsible for diminished profits for many companies and is unpopular with them for that reason as well. The battle between traditional and newer publishing models will surely be fought for some time to come.

vertical, or asymmetrical, surveillance

As people become increasingly available and visible to one another in digital contexts, online *surveillance* has become a constant reality. Online surveillance occurs when someone uses the internet to track or monitor someone else's behavior. Individuals, organizations, and governments subtly (and not-so-subtly) observe people's presence online (Holtzman, 2006; Lyon, 2007; Marwick, 2012; Nippert-Eng, 2010; Nissenbaum, 2009; O'Harrow, 2006; Raab & Mason; Solove, 2004). Personal information collected through this process is routinely mined, gathered, shared, and sold for purposes that range from commercial to political to legal.

Surveillance is considered asymmetrical or "vertical" when a strong hierarchical power structure is involved, as when governments or corporations seek to influence, manage, protect, or direct the behavior of a population (Lyon 2007, p. 14; Marwick, 2012, p. 381; Tokunaga, 2011). In many instances, the people being watched may not know they are being surveilled or that the activity is pervasive and ongoing. As the power structure is asymmetrical and does not favor them, they may not feel that they have the means to resist such surveillance.

Governments often assume considerable latitude to view or investigate the behavior of individuals in ways that some citizens feel encroach upon their freedom. Tasked with protection of the populace, those in power often claim that this charge justifies the surveillance. While the Electronic Communications

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Privacy Act of 1986 extended the prohibition of government wiretaps from phone lines to also include computers, 2001's PATRIOT Act, enacted in the wake of the September 11 terrorist attacks, greatly reduced these protections in the name of national security, exposing citizens to warrantless wiretaps and the seizing of such data as phone records. The Foreign Intelligence Surveillance Act of 2008 extended the ability of the U.S. government to perform warrantless wiretaps in foreign nations. While these laws will surely be debated and amended over time, the question must be asked and continually revisited: When do these kinds of activities shift from being appropriately protective to becoming undemocratically intrusive and a betrayal of civil rights?

Digital technology is intrinsic to the act of modern surveillance. Data related to online behaviors and preferences are persistently tracked when people are online. Habits and behaviors are discerned and individuals' preferences and lifestyles are profiled. A phone can be wiretapped or can transfer information remotely even when turned off, acting as a microphone and transmitting conversations that take place within its vicinity. GPS systems can track people's locations as well and in some cases have been placed in people's cars without their knowledge and even without a warrant (Claburn, 2009).

Surveillance can also be positive. Surveillance can assist in the rescue of people stranded or lost, as locations can often be remotely tracked via one's smartphone. It can prompt the suggestion of new information or the introduction of new people into one's life. And information tracked and compiled via surveillance can help people fend off intrusions, attacks, or crimes and make them safer.

When individuals go online they leave data traces (called *cookies*) that disclose exactly which sites they have visited, for how long, and, in many cases, for what purpose. From these traces it is easy to determine a lot about people's identities and lifestyles. People also disclose a lot about themselves in postings, emails, and text messages, nearly all of which is traceable and archivable. Many employers monitor employees' online behaviors and read their emails (50% by some estimates; Chayko, 2008, p. 132). Many future employers and schools check the reputations of potential employees and students by searching for information about them or canvassing their publicly available social media accounts.

Some organizations specialize in finding or "mining for" these bits of information and using them to make inferences about what people would like to buy or do or even *be*. This is called *data mining*, and it is important to remember that it can and likely does happen all the time when we are online. In data mining, information is extracted ("mined") from a larger body of information in order to uncover details or patterns about the behavior of a person or organization. This can have

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troubling privacy implications because much of this happens without a person's explicit permission or even his or her conscious realization. At times, permissions may be obtained, but this often occurs in fairly complex *terms of agreements*, which people may not read or understand or which may keep changing.

Some companies exist solely to do this kind of data mining, aggregation, and analysis. In other cases, media organizations like Facebook and Google mine, collect, and aggregate data as people use their products and sell this information to advertisers and to data mining firms that collect it in huge databases (see Marwick, 2012, p. 1). At times, governments and law enforcement may request this information directly from the social media organizations. In recent years, "the collection, aggregation, and utilization of personal data for targeted advertisement have become an accepted social norm" (Young & Quan-Haase, 2013).

Search engines, which people use to locate information on the internet, allow data mining to happen rather efficiently. Google is, by far, the most popular search engine; it is used in over 65% of web searches. Other search engines include, in descending order of use, China's Baidu, Yahoo, Russia's Yandex, and Microsoft. Each of these search engines are used, at this writing, in less than 10% of searches. Search engines sort through, filter, organize, and display information to the searcher by utilizing algorithms. These algorithms consist of sets of digitized instructions programmed into computerized systems that can result in the recognition of patterns and the mining and gathering of data on that basis. The results can influence what an online search yields, what users are exposed to when they surf the net, and what information is displayed in social media feeds.

At the same time that it produces results for the user, Google also stores, caches, and archives large portions of web content as the web is being searched. It sells to companies the ability to improve their standings in search results. Apple, Microsoft, Facebook, Yahoo, and other major tech companies also allow the data that flows in and through their platforms to be mined and in some cases participate in the mining. As a result, nearly everything that is done on the Internet is tracked, analyzed and stored, and then used for a variety of purposes (Cobb, 2012; Chen, Pavlov, Berkhin, Seetharaman, & Meltzer, 2009; Sengupta, 2012).

Once mined and discovered, information can be used in a number of ways by law enforcement agencies, governments, hackers, employers and future employers, and corporations. Credit can be denied to you because you have been profiled as someone unlikely to be able to purchase something. Advertisements are targeted to you because you have been identified as someone who is likely to make that purchase. You are placed in a niche (say, as a "socially liberal organic eater," or a "single city struggler"), and ads that are customized to appeal to you follow you

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around the internet from page to page. Advertisers now have tremendous power to influence people's internet experiences (Turow, 2013).

In order to use many of the services that take place online, data must be provided. Personal information is truly a "new form of currency" (Madden, Cortesi, Gasser, Lenhart, & Duggan, 2012). But because time spent on the internet is so often engaging and involving, this is an easy thing to forget. And many people, certainly including the youngest digital tech users, do not know that when they are online they are subject to near-constant surveillance.

Even more intrusive digital surveillance technologies are being developed and deployed at a rapid pace. The technology now exists to implant chips under the skin that can track people's locations and send information about them to others. Small as a grain of rice, these chips can store all kinds of data and allow the government or an employer to track the whereabouts and other characteristics of the individual who has been "chipped," with both positive and negative effects. Implantable chips can store lifesaving medical information, help find kidnapped or other missing people, and identify bodies in the case of tragedies.

A few companies have begun to require some employees, such as those who have high levels of security clearance, to be chipped. A beach club in Barcelona, Spain, has even chipped partygoers so that they can "breeze past bouncers and entrance lines, magically open doors to VIP lounges, and pay for drinks without cash or credit cards" (Lewan, 2007). Individuals implanted with difficult-to-remove chips can now be scanned. But it is a realistic worry that implanted chips will permit employers, the government, or anyone in power to track people's whereabouts and what they are doing, and to gather highly personal information in an intrusive and even illegal manner (Hilden, 2002).

Individuals are also subject to surveillance by remotely piloted flying machines called *drones*. These aircrafts, which can be small or large, are used for purposes that range from recreation to video recording to warfare, and, increasingly, they are used for surveillance. Drones can be equipped with cameras and electromagnetic sensors that can detect objects behind physical barriers and thus can perform surveillance functions discreetly, without the involvement of a human pilot. In many circumstances it is impossible to know whether a drone is flying overhead at any given time, possibly gathering information on what you or others are doing behind closed doors.

As with algorithms and the remote use of smartphones and GPS technology, surveillance can occur invisibly and in situations in which it may not be expected. Surveillance can invade as easily and as subtly as it can protect, and it is intruding

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further and further into spaces once thought of as private and impenetrable, like the human body or the personal residence.

How individuals and societies respond to vertical surveillance—whether they accept or resist it—will shape their futures in critical ways. Several organizations advocate for digital civil rights on an ongoing basis. The Electronic Frontier Foundation has fought for Internet civil liberties since 1990, working to defend those whose use of technology is attacked in ways considered unfair and undemocratic. In 1994, the Center for Democracy and Technology was established with the aim of influencing national policy regarding such issues as free expression and privacy. The Free Software Foundation, founded in 1985, supports the creation, distribution, and modification of free computer software. This aim is shared by many in the open source movement who encourage, invent, and make possible ways for ideas and information to be shared and accessed freely and openly without costs or undue complications that would exclude many from participation. As a result of these efforts and many like them, it is now possible for people to be aware of and in some cases challenge surveillance activities on the internet or even to surveil those doing the surveillance.

horizontal, or social, surveillance

Social media sites are designed so that people can easily see what others are up to. Users follow news feeds or timelines and get to know a lot about one another. They may feel that they have much in common with their fellow posters and even feel that they are getting to know them fairly well. To peek in on others as they go about their everyday lives and post about it online is a common occurrence, serving "the essential purpose . . . of seeing and being seen," says sociologist and social network expert Duncan Watts (as quoted in Cassidy, 2006, p. 54).

This behavior is sometimes described as gazing, creeping, voyeurism, or, at its criminal extreme, stalking, but it really is another kind of surveillance. Rather than surveillance coming from someone more powerful, this kind of surveillance is more "horizontal." In the words of sociologist Alice Marwick, it is *social surveillance*, and it has become an ordinary and expected aspect of the online experience. As one of Marwick's interviewees put it, to look at what others are doing online is "not really weird for anyone anymore" (2012, pp. 378–379).

Online communities are characterized both by watching and by a high awareness of being watched, Marwick points out (2012, p. 379). People generally know that

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their content may be seen and that they are effectively being watched when they are on social media sites. They consider being watched part of the experience. They may (or may not) tailor the content they post to certain audiences or particular others they believe will see it, thereby shaping it with the knowledge that social surveillance will take place.

Some consider the experience of watching others online less an act of surveillance and more an indicator of emotional involvement. For longtime blogger Rebecca Blood, it is real emotion, not cheap voyeuristic glances, that tend to be exchanged when people blog. "There may be some people who follow blogs to 'watch,' but there are many others who really come to care about the lives of the bloggers," she says. "Many times, readers will come to a blog to read about a subject they are interested in, and slowly become invested in the everyday life of the writer, as it is revealed in bits and pieces over weeks and months" (as quoted in Chayko, 2008, p. 177). For even when one is merely lurking online, he or she can be engaging with others in a deep and meaningful way.

The experience of social surveillance—of presenting and viewing information—is a bit different from vertical surveillance, as it is an exchange of information among people with relatively equivalent levels of power. Inequalities are not absent in social surveillance, of course. People do not have equal power in their relationships, and these dynamics are seen in their interactions both online and offline. Power differences related to race, class, gender, age, sexual orientation, and other kinds of social statuses are also seen in these relationships, playing out in ways that reflect their offline dynamics.

Perhaps the biggest difference in horizontal vs. vertical surveillance is in the amount, type, and expectation of reciprocity in the relationships. People often produce content with the desire that it will be seen, liked, commented upon favorably, and maybe even inspire others' content. Thus, people are performing a kind of active surveillance of one another, consuming and commenting on one another's content and paying continued attention to one another as they create and live in the attention economy. All this activity results in the ongoing formation of social connections, networks, and communities, which helps to maintain and cement interpersonal relationships and bring people closer together. At the same time, social asymmetries and inequalities are also highlighted.

In an environment in which people are expected to be almost always available to one another, they can become prone to checking up on one another more often. Friends and partners, romantic or otherwise, can technologically keep an eye on one another, and parents can monitor their children. It is even possible to

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purchase spyware software that can be secretly installed on a computer and inform the installer of every move and keystroke. The ethics of this are tangled and complex. Should parents surveill their children in an effort to keep them safe, and, if so, to what extent? Is this ever acceptable among adults, and, if so, when? How much checking up on one another is too much—suffocating, unfair, illegal? Are we creating societies in which people have become so accustomed to surveillance, both horizontal and vertical, that personal privacy has become dispensable? To what extent is privacy something to be protected, to be valued?

Social surveillance can also lead to the complexities and misunderstandings that arise when very different audiences see one another's content and interact online. When one's social media audience consists of, say, both family and work colleagues, information may be inadvertently shared that would not be appropriate for both contexts, perhaps causing strife or trouble. Someone may complain about work, forgetting or failing to realize that the boss has the ability to see that complaint. A parent or future employer may see evidence of inappropriate behavior meant for the eyes of peers. When two or more audiences or publics coexisting on social media in effect "bleed into" one another or "collapse" such that it becomes difficult to keep them separate, it is called *context collapse* (Marwick & boyd, 2011).

Technology contributes to the blurring of the boundaries of all kinds of contexts, such as between *public* and *private* and between such formerly strictly demarcated categories as *work* and *off duty* (Nippert-Eng, 1996). Within these contexts are *social roles*, which are the expected behaviors that accompany *social statuses*—our positions in the various groups we are part of. For example, one of your social statuses may be that of a student. This can entail the following roles or behaviors: studying, going to class, maybe having fun on a Friday night with your friends. On social media, students may post content that relates to each of these behaviors, forgetting (or not knowing exactly how to navigate) the fact that different audiences may see all of the content. Teachers may see posts related to disliking a class. Parents may see posts about partying on a Friday night. Different audiences can see the same content online as different contexts overlap and collapse.

To share content online and on social media is to communicate with a number of audiences, some of which are known and some of which are unknown. One might use a different tone and posture with these different audiences when they are neatly separated into different physical spaces. This is harder to do online. One cannot know exactly who is out there viewing one's content at a particular time. Even if restrictions are placed on who may view what is posted through privacy

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settings, and even if audiences are kept carefully separate in different social circles, content can still be reposted, retweeted, accidentally forwarded, or simply seen over one's shoulder on a screen. There is no way to know exactly who may see information once it is digitized. And even though users may "sense their audience at a particular point in time," as boyd and Heer note, "they have no conception of who might have access to their expressions later" (2006).

As decisions are made that result in personal disclosures, sharing online can become a highly intricate, strategic activity. It allows people to share information widely and efficiently while forfeiting some control over what will happen to that information once shared and how those who see it may respond. But these are "normal parts of day-to-day life in communities that are highly connected through social media," Marwick points out (2012, p. 391). Additional opportunities for social connectedness and increased social capital can accrue in the sharing and networking that can accompany horizontal or social surveillance. A lack of privacy, exposure to harm, and continuously collapsing contexts can be among the negative results, representing some of the risks of living in a more open society.

privacy and obscurity

So the internet is not a private place; there are really no corners in which to hide. Everything can be potentially accessed and seen, many of life's contexts come into contact with one another, and it is difficult to ascertain who may or may not see content at any given time. For these reasons it is best to be extremely careful when online. As noted earlier, many future employers and graduate schools check the social media profiles of prospective employees or students, looking for goodness of fit and possibly even objectionable content before making a hiring or admission decision. Whether we realize it or not, individuals leave a *digital footprint* when online and even when simply sending text messages. And this footprint never fully disappears.

It seems that the very nature of privacy has substantially, irreversibly changed. An individual cannot hope to be fully private when online; online spaces are public by default. Smartphones and cameras that might catch misdeeds proliferate. Vertical and horizontal surveillance are always present. Youth and teenagers are already altering their notions of privacy and may be at the forefront of a new way of conceptualizing what public and private spaces are (boyd, 2014; Marwick, 2014).

Many people are also becoming aware of the importance of developing specific strategies to address their privacy needs. Such strategies include limiting profile

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options, untagging and removing photographs, and refusing friendship requests from strangers (Young & Quan-Haase, 2013). While such strategies help to protect one's data in interpersonal situations, they are less useful when guarding against institutional or vertical surveillance. To try to keep one's data private can begin to feel like fighting a losing battle.

It is healthy to have places to retreat sometimes and to feel that what one is doing is private. It helps an individual feel safe and free. It provides a measure of autonomy. Tech ethics scholars Woodrow Hartzog and Evan Selinger say that such private, safe spaces are becoming harder to find because individuals' data are no longer easy to obscure, to keep disaggregated and hidden (2013). The vast amount of data that can serve to identify aspects of an individual's life—address, employment info, interests, credit score, purchasing patterns, and the like—used to be difficult to aggregate, or gather in one place. If a person wanted to obtain a fairly obscure piece of information about another person (let alone many such pieces of information)—say, a comment one may have once made related to a hot-button social issue like race relations or war—it would have been fairly difficult to find. Individuals could be reasonably sure that if someone wanted to locate and gather such information, perhaps to be used against them, it would be very difficult—perhaps impossible—to do.

In modern tech-intensive societies, information is no longer easily obscured. Data mining processes help organizations gather and categorize info and comments that an individual may have made over many years. Comments, posts, and bits of information that might otherwise seem incidental can be (and regularly are) technologically retrieved and pieced together. A detailed profile of an individual, consisting of his or her purported characteristics, interests, habits, behaviors, and so on, comes into shape. It has become much more difficult to find spaces in which data are not being gathered and aspects of the self can remain obscured, hidden, or private.

Companies that mine and sell people's data have developed extremely sophisticated ways to piece together and aggregate information. Algorithms are used to procure and digest this information and to place people into categories based on the patterns that emerge. This kind of profiling can have a significant impact on a person's life. People may be provided—or denied—jobs, credit, or other opportunities based entirely on algorithms that make predictions about them based on how they or how other people with similar characteristics have behaved in the past. *Algorithmic profiling,* or predicting the behavior of individuals based on their own aggregated data and that of others perceived to be like them in some way, has become big business.

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It is easy to forget that this kind of institutional vertical surveillance is happening when we are online (Young & Quan-Haase, 2013). Certainly many internet and digital media users are unaware that this happens at all. Our computers and smartphones often feel like they are part of personal, private, intimate environments. This is not surprising, as we use them in our homes and in the most intimate of spaces, even keeping them in our purses and pockets. It is easy to become overly casual and relaxed when we are online, to say and do things that we might not want preserved forever. It is also common for children or younger people not to take into account the impact of their actions on their "future selves" when participating in online activity. To do so would require a maturity they often do not possess.

If people want to preserve their rights and live in free, open societies, attention to these issues must be paid. Civil rights and freedoms are not always evident or protected in digital spaces. They must be articulated and fought for whenever and wherever they are threatened, in both digital and physical spaces. The techno-social environment is always changing. New technologies are always being invented, and their impacts must be carefully considered.

It is always helpful to be aware of power differentials when examining (and *living*) techno-social life, whether in digital or face-to-face environments. In the next chapter, we examine technology-related inequalities and impacts as they exist globally. We look closely at how individuals and societies across the globe are impacted by the internet and digital media and speak back to power, and we explore some ways of living that are very different from our own.

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