

8

THE TECHNO-SOCIAL INSTITUTIONS

the institutional “heart”: the family

We say that something is an *institution* when it is foundational, functional, long-lasting, large in scale, and systemic—when it has been around a long time and it seems like it may always be. *Social institutions* provide a society with structure and order and give its members a framework within which to build their social connections and communities. They are so critical to helping a society (and its members) function that all societies contain some social institutions—mostly, the very same ones that we examine in this chapter.

For eons, some of the most critical social institutions have included the family, business and the workplace, health care, religion, education, politics and governing, the criminal justice system, and the media. Each of these has been strongly influenced by technological developments over time, with the internet and digital media in particular playing a very strong role in this. These newer technologies must be integrated within each institution, while older strategies remain important for the accomplishment of goals (Zickuhr, Purcell, & Rainie, 2014). For this reason, this book refers to these critical institutions as the *techno-social institutions*.

It makes little sense to study social institutions in isolation from one another. To understand how our families operate, for example, we must understand how their members work, are educated, practice their religions and politics, and so on. We must consider the effects of a society’s systems of criminal justice, health care, media, and government on its members, and we must consider the effects of the activities in each social institution on one another. The study of all of these systems, all the social institutions, makes the most sense as a concerted whole (Durkheim, 1893/1964).

It is also important to look at how the members of a society construct the social institutions and endow them with meaning and, for our purposes, how

technology is employed to do so. For it is in the day-to-day behaviors of individuals making decisions as to how they will act and exercising their agency (individuals are therefore sometimes called *social actors* in this context) that a larger system is gradually built that can then help shape future behaviors of the people within that system. Individuals actually create and build the institutions of society through thousands and millions of everyday acts, large and small. (It is important to note that we cannot grant to institutions the power to act on their own; it is *people* who act.) At the same time, the institutions have a powerful influence on those who exist within them and the decisions those individuals make to act as they do. It's an endless circle—a loop—of structure and agency, representing the way that the macro and micro levels of a society influence and indeed create one another (for a vibrant description of the relationship between structure and agency, see Erdmans, 2004).

I always recommend that when we analyze social institutions, we start with the family because the family is at the center, at the heart, of any strong, functioning society. It is the most intimate of the institutions because it is the first place where most people learn about love and life. It is, in fact, a microcosm of society. As we have seen, the family is a primary group, an agent of socialization that inspires and encourages the development of self and identity over the course of a lifetime. And more than in any other institution, we can see in the family how the micro-level life of the individual and the macro-level life of the social system influence and indeed construct one another.

The internet and digital media are part of the everyday life of families in technologically developed societies. They help keep families connected in much the same way as they help individuals and communities remain connected because a family is really a small (and in some cases, a large!) community. At the same time, technology has changed the dynamics and dimensions of family life. The higher the levels of education and income, the more likely it is that a family will use the internet at home and that it will be central to their lives (Rainie & Wellman, 2012; Wellman, Smith, Wells, & Kennedy, 2008).

In tech-rich societies, many families invest in multiple ICTs that can be found in nearly every room of the house. In addition to computers (desktop and laptop), tablets, and cell phones or smartphones, homes may contain multiple televisions, digital cable boxes, gaming consoles, video recorders, and DVD or Blu-Ray players. Television watching is a very different experience today than it was even in the early 2000s. Individuals can now select from a wide variety of more narrowly conceived programs that they can view in different ways on their own schedules (traditional TV, streamed video via Netflix or YouTube, cable or satellite programs “on demand” via TiVo or DVR), with social media at the

ready so that one can interact with other viewers while watching. This is, again, networked individualism in action, as family members use these technologies to remain connected with one another (Rainie & Wellman, 2012, p. 159).

Even in societies in which tech use is common, though, families are not equally “wired.” Some families operate under the constraints of limited internet connectivity and mobile data plans. In these families, members may bargain over time spent on the internet. While youths from highly wired families enjoy individualized net time, members of partially wired families divide up household internet time carefully. Families are expected to make sacrifices in order for their children to obtain internet access, as children are increasingly expected to use the internet for homework and for such social capital–building activities as forming social networks and researching and applying to colleges. The presence or absence of the internet in the home can therefore have far-reaching effects on a person’s ability to progress in society and remain connected and networked (Robinson & Schulz, 2013).

Members of families also use the internet and digital media to stay in contact with one another and with their extended families. People, usually women, often use social media, usually Facebook, to perform this kin-keeping function. A kind of purposive leisure has developed in which, through chatting, photo sharing, and game playing, members of extended families can enjoy one another’s company as they remain in contact (see Boudreau & Consalvo, 2014). While this kind of kin keeping has traditionally been the responsibility of a female caregiver, in about two thirds of American families who use digital technology to accomplish such tasks, the heads of the household (when there are two of them) share the work (though not necessarily equally). They divide up contacts and stay in touch with those contacts by texting or phone calling. Similarly, they generally share the work of staying in touch with children via phone and expect frequent check-ins from children (Rainie & Wellman, 2012).

Social media and texting play important roles in maintaining communication and connectedness among family members near and far, and webcams and email are especially helpful in providing a sense of copresence for spatially separated family members. As children grow older, parents are more likely to use ICTs to communicate with them, and parents are most likely to text with one another when their children are of school age (Rudi, Dworcen, Walker, & Doty, 2015). Families also use digital tech together. Just as they may watch TV together, they go on the internet together or spend time talking about digitally generated entertainment or other content (Madianou & Miller, 2011; Rainie & Wellman, 2012; Wellman et al., 2008). And when they vacation together, families use smartphones to document the experience, enhancing the sense of family

unity, while also providing opportunities for members to retain their sense of individuality (Yu, Anaya, Miao, Lehto, & Wong, 2017).

Children, using computers and cell phones at ever-younger ages, often teach their parents and caregivers how to use them. This does not necessarily mean that their use of technology is sophisticated or thoughtful (see boyd, 2014). But children who have grown up with digital technology may be particularly comfortable having technology folded into their lives and used in family settings. Older family members who can remember a different way of life may have a harder time with the pervasive, near-constant use and effects of digital technology. Some say that they find the technology “cold” and refuse to use it on that basis; for others, the learning curve to adopt and remain skilled on digital technology is an impediment. In general, those older people who are already strongly connected socially are most likely to adapt and benefit from online digital technology (Luders & Bae Brandtzaeg, 2017; Luders & Gjevjon, 2017).

Children often receive their first phones from caregivers seeking to keep them safe in the event of emergencies. There was a huge spike in cell phones given to children in the United States after the terrorist attacks of September 11, 2001, an event that struck fear in the hearts of many who were (or still are) afraid of another attack or a forced separation from their children. To be better equipped during an emergency is often cited as a reason children are given their first phones (and why many adults purchase theirs as well). In a bit of sad (for children, anyway) irony, while mobile phones may provide the means for children to move about more freely in their parents’ absence, they are also the means by which parents check up on them. These obligatory check-ins tend to occur more frequently than they did in the predigital era, so in essence, many children have become more tethered to their parents than ever before (Turkle, 2012).

Many caregivers also do not want their children to be on the wrong side of a perceived digital divide. Owning a cell phone can be an indicator of status, wealth, or power. Children may be concerned with being left out of group texts and activities coordinated and facilitated by phone. They want to be included in games their friends play and content options that their friends are exposed to. Their impulse to be part of the group and to fit in is sometimes misunderstood by parents, who concentrate more on potentially negative impacts of the phone and less on the more positive role it plays in childhood sociality.

Still, many parents help their children go online at relatively early ages. The vast majority of parents assist their children in accessing or signing up for social media sites like Facebook before they are old enough to do so on their own (boyd, Hargittai, Schultz, & Palfrey, 2011). However, many parents spend

time on social media sites like Facebook with their children. In 2011, 80% of parents who were social media users and had children who were social media users friended their child on at least one site, and about half of these parents commented on or interacted with their child directly on the site. This can prompt discussion of things seen on the internet and on the site, including behaviors a parent finds problematic, while it furthers the development of social connections inside and outside the extended family.

Many parents worry about keeping their children safe online. They also worry about overuse of and dependency on the technology. They may seek and receive expert advice for controlling the use of technology (such as keeping computers out of the bedroom or using filtering software) and may even implement some of these strategies. Parents often feel more comfortable if their children carry mobile phones with them when out of the house, even as they perceive those phones as being overused.

Of course, smartphones are minicomputers that bring the internet into children's personal spaces wherever they go. While the internet and digital media provide a window through which parents can view what their children do, children also employ strategies for keeping their activities obscured. It is common for children and teens to visit social media sites that their parents do not know about and to communicate with one another there. They may choose apps that are brand new or that their parents do not know about; one of the reasons for the popularity of Snapchat is that evidence of activities disappears from parents' eyes. This is part of kids' efforts to carve out their own identities away from the watchful eye of caregivers, as discussed in Chapter 6. Texting, which often feels private when being used, is also popular among children and teens for much the same reason, as is the ability to stay in touch with groups of friends on an ongoing basis with group chats.

There has been much discussion as to how deeply involved (some say *overinvolved*) modern "helicopter" parents are in their children's lives. There is strong temptation to use digital technologies to surveil children, track their every move, and contact them with great frequency, even as they grow older and become young (and then older) adults (Hofer & Moore, 2011; Nelson, 2010). But many of the parents interviewed by sociologist Lynn Schofield Clark for her study of parenting in the digital age disclosed that they tried very actively and deliberately to resist these temptations and to provide appropriate space for their children to grow up (Clark, 2013).

At least two distinct patterns seem to have developed as families of different backgrounds and income levels respond to the use of digital technology in their

lives (though there is surely overlap between these two, as well as departure from these norms—see Clark, 2013). Among upper-income families there tends to exist what Clark calls an “ethic of expressive empowerment,” in which there is a strong ethic and expectation that the internet and digital media be used for education, achievement, and self-development. Among lower-income families, Clark has noticed an “ethic of respectful connectedness,” in which children are primarily guided to use digital media to remain compliant and connected to family members. If you look closely at the premises that underlie these two ethics—both admirable but very different—you can see how these different norms and expectations can serve to reinforce the economic and social gaps that currently exist in U.S. society (Clark, 2013).

There are many challenges for families as they attempt to integrate technology into family life (Madden, Cortesi, Gasser, Lenhart, & Duggan, 2012). Parents and caregivers worry that children are online too much, and they worry about what they are doing—including the digital footprint that may remain. Caregivers—especially those of younger teens and preteens, and from upper-income households—also worry about how their children treat one another online and whether they are contacting strangers online or face-to-face. Many attempt to implement strategies aimed at controlling or reducing digital technology use, but these efforts are to some extent limited by the portability of mobile media and the freedoms this gives its users. Providing strategies for appropriate use and using filtering mechanisms or spyware can return some of this power to parents but at the expense of privacy for family members and possibly even the level of trust given by children to their parents and vice versa (Newell, Moore, & Metoyer, 2015). Families should ideally consider how to balance safety and trust as they develop relational strategies for using digital technologies.

All in all, most tech-connected families use digital technology to remain in touch even as they move busily and independently from place to place. Mobile phones in particular help family members “go their separate ways while keeping them more connected” (Rainie & Wellman, 2012, p. 170). Families may have less “face time” than in the past, but they have more “connected time” (p. 170).

health care

The internet and digital media have come to have a profound influence on people’s health care and therefore their health, both physical and mental. The storage, management, and transmission of health-related data now increasingly occur digitally. Technology also supports and influences clinical decision-making and

facilitates patient care, often from a distance. While it is clear that health care practices are changing in high-tech digital societies, the impact of these *e-health* changes is not yet clear. There is, so far, a dearth of conclusive evidence regarding the quality, safety risks, and cost-effectiveness of implementing health-related digital technologies, especially on a societal scale (Black et al., 2011).

Health care has become biomedicalized in the digital era. Issues and problems once thought outside the realm of medicine (like drug abuse, childbirth, and depression) are now considered medical issues, with an increasing expectation that they be covered in health care plans. Managed care systems, corporatized insurance systems, and computerized patient data banks are supplanting the individualized systems of the independent physician as caregiver. Science and technology are expected to explain and contribute toward best practices and cures, and they have spawned a number of biomedical organizations, infrastructures, and clinical treatments. In addition, information on health and illnesses proliferates via all kinds of media, including the internet, and direct-to-consumer prescriptions, over-the-counter drug advertising, health issues, and ethics are debated in digital media constantly (Clarke, Shim, Mamo, Fosket, & Fishman, 2010). Biomedicine has been considered a fundamental element of mass culture and popular media (Bauer, 1998).

Most people now look for health information online in addition to turning to their physicians, friends, and family (Fox, 2011a; Hesse et al., 2005). What has been called “peer-to-peer” health care is flourishing—reminiscent of the ways that people helped one another in tribal communities that did not have access to modern medicine (or it hadn’t been invented yet). In general, both online and offline, the larger one’s network, the greater the health benefits. Online, people help one another find information, goods, and services that can improve their health, both physical and mental (Bessiere, Pressman, Kiesler, & Kraut, 2010). Offline, exposure to larger numbers of people provides greater immunity to infectious diseases by exposing people to a wider range of infections, such as common cold viruses (Rainie & Wellman, 2012, p. 132; Song, Son, & Lin, 2011).

Medical information accessed online is not always accurate, however, even when sites look slick and professional. Such sites may help to diagnose certain illnesses, but they generally fall short in providing plans for recovery (Voliti, 2014, p. 193). Health care providers must contend with the knowledge that patients have often consulted many other, likely digital, sources. With medical information at their fingertips, individuals have become more intimately involved in decisions related to their health. More and more, they feel an increased responsibility for their own health. Still, most consider their health care providers their most-trusted sources of information (Cotten & Gupta, 2004; Hesse et al., 2005). Most

patients are not using the internet to self-medicate; they still look to medical professionals to provide definitive diagnoses that involve the prescribing of drugs (Cotten & Gupta, 2004; Fox, 2011b).

It is becoming more common to take personal charge of one's day-to-day health and fitness. Digital and mobile technology have become valuable tools in this effort. One in three cell phone owners uses a phone to access health information, and one in five smartphone owners has a health app on his or her phone that is usually related to diet, exercise, or both. Younger adults, minorities, and those in particular need of health info are most likely to install and use one of these apps (Fox & Duggan, 2012).

Importantly, the internet has enabled the creation of new pathways for patients to find and help each other (see Bessiere et al., 2010). People find and form groups in which they share health and medical information, fight diseases and addictions, lose weight, and live healthier lifestyles. They share information related to their health and health care and support one another (Hajli, 2014). This is especially critical when one has undergone a significant change in one's health or is faced with a disease of some rarity.

Health-oriented communities can be significant and indeed life changing for their members. Additionally, messages that members exchange are often searchable and can be found later by others with health questions or conditions. This gives people increased control (or a feeling of control) over their health and the means to make decisions and battle problems (Fox, 2011a). Of course, when information is digitized it can be hacked and surveilled; one cannot assume that it is completely secure. In short, digital health platforms, communities, and apps can help people live more productive and healthy lives, but care should be taken as the quality and security of digitized medical information cannot be guaranteed.

religion

For many in technologically developed societies, the practice of religion has been transformed by the ubiquity of the internet and social media in their lives. At one time, religious ceremonies took place only or primarily in sacred places, built and consecrated by the faithful. To go to a special physical space—perhaps a church, synagogue, or mosque—and practice one's religion was a ritual. Now, many religious services take place online and can be attended from a distance. *Cyberchurches* have evolved from web forums to fully interactive sites in which members can view and engage in a service online or even take part in one as an avatar in the virtual reality "world" of Second Life (www.seconddlife.com; Campbell, 2012).

Information about sects, places of worship, and religions themselves are spread widely through electronic and social media channels. Religious leaders write blogs and record podcasts; sermons and music can be accessed via a cyberchurch website. Apps have been developed that allow people to more easily interact with fellow worshippers and with faith leaders—there is even a confession app that allows Catholics to digitally approximate the ritual of confession (although it is not recognized by the church as an actual confession; see Cheong & Ess, 2012). Religious texts can be accessed online and prayer requests can even be placed (Campbell, 2012). One in five people who practices religion talks about it online, and about half have seen others do so. One in five has also followed his or her faith using a mass media platform, such as a religious talk radio program, TV show, or music (Pew Research Center, 2014).

Media use not only increases people's access to religion but can also supplement their understanding of it. Websites, forums, and social media permit people to share, discuss, and debate religious issues. More obscure religions and religious views can be discovered and their tenets brought to light; new ones can be developed and find an audience. Spirituality in general has received a boost from the number of sites devoted to spiritual issues and from the use of the internet to find places in which to explore it. "Faith brands" can be successfully developed through publicizing the mission of a church or religion and encouraging loyalty and membership (Cheong & Ess, 2012).

Using social media to follow and discuss religious issues does not necessarily lead to engagement in brick-and-mortar places of worship, however. For many, the engagement stops with the click of a like button or a follow. Those who join Facebook groups for religious organizations usually limit their religious participation to the online group, communication scholar Mark D. Johns has found. They do not necessarily consider the next step to be physical attendance at a place of worship. Rather, the act has symbolic meaning or serves as an indicator of identity rather than a commitment to take a more physically active role in one's faith (Johns, 2012).

Open discussion of and participation in religion can challenge what has previously been considered sacred. In sociologist Emile Durkheim's analysis of the sacred and the profane (1912/1965), the sacred carries special meaning because it is somewhat hidden and must be appreciated in a private space. Religious practice is now a more public activity. A religious service might seem to some to be less special and sacred when it is broadcast or streamed to an internet audience. On the other hand, this can publicize the religion and permit access to those who might otherwise be unable to attend.

For people who wish to keep such activities private, though, this can be a problem. In some societies, people are free to practice a religion (or not to do so) without fear of reprisal or penalty. But in many places, people can be profiled and persecuted for their religious views and targeted, harmed, even killed. Digital technology can assist in the detection of people who hold certain views and can therefore help those who hold opposite views organize against them (see Kjuka, 2013). But, as we have seen, it can also help people who share the same views find one another, form communities, and give and receive social support.

The practice of religion is changing in the modern world. Whether or not these developments represent a “commercialization” that is not in keeping with the mission of religion is increasingly debated. Worldwide, *religiosity*—the belief in or practice of religion—is on the decline, especially among those under age 40, while atheism is on the rise. Many who consider themselves not to be religious have not left their faiths, though; they continue to practice them in their own way but have opted not to define or identify themselves as a “religious person.” In general, women and people with lower incomes are more likely to consider themselves religious than their counterparts, a finding that holds across global cultures. And about 60% of the global population still considers itself to be religious (WIN-Gallup, 2012). It will be interesting to see how the incorporation of ICTs into religion, worship, and spirituality affect these trends.

work and commerce

Work has undergone a massive transformation in the digital age, as the internet and digital media have become a critical part of organizing and transacting all kinds of business. Computers and mobile media are used in countless organizational settings in a number of ways, from gathering data to organizing it to providing shared spaces for work. In many companies and organizations, work is done and business is transacted in a number of spatially distributed settings, all coordinated via computer. Over 60% of American workers use the internet on the job (Madden & Jones, 2008).

E-commerce—buying and selling products, services, and information online—is a big part of internet work. In most cases, it is much less expensive to set up an online “storefront” (usually in the form of a website with the ability to take in money) than to rent store space. Information transmission costs are also relatively inexpensive over the internet. Even companies that have a physical location often now do a good portion of their business over the internet, and those that do business primarily over the internet may still have one or more physical locations.

Many people appreciate the convenience and value of online commerce. The online shopping industry grows every year, a trend that is projected to continue. The largest share of online revenue in the United States is generated in retail shopping, with Amazon the top vendor, and travel booking websites generate one third of e-commerce revenue (Statista, 2014). Some businesses have not translated to e-commerce as well as others, but due to the large profits possible, innovations to them are being explored. For example, grocery shopping, which as of 2014 had not found major success online, seems to have a brighter future in e-commerce. Amazon is fronting the cost of an expensive delivery infrastructure, without which the business could not take off, and customers are getting used to the idea of buying fresh food online. It takes both a technological and a psychological shift for some businesses to succeed.

Forty percent of worldwide internet users have bought products or goods online via desktop or mobile devices. This amounts to 1 billion online buyers, a number that is projected to continuously grow. They are not evenly distributed around the globe, however. More than four times as many people in the United States, Great Britain, Norway, Japan, Korea, and Denmark have shopped online compared to Hungary, Italy, Greece, Mexico, and Turkey (Curran, 2012). Internet access is likely one of the biggest reasons for this difference; also, e-retail confers an economic advantage only when warehousing and distributions costs are low.

Online commerce also has a deliberately communal dimension. In rating, commenting on, or sharing opinions and information regarding sales transactions, social connections can be formed that have real impact on the business. On online auction sites, for example, people tend to be willing to pay more for an item if others express an interest in it (Kauffman & Wood, 2006). The dynamics of online sharing and connecting, then, can be critical to the success of the online organizations that engage in such activities. At the same time, data mining and surveillance should be kept in mind. Consumers and companies alike should be aware of the implications of widespread sharing on people's privacy and safety and of the (in)security of data in online spaces.

Internet usage on the job tends to vary by field of work. Nearly three out of four professionals, managers, or executives use the internet at work, either constantly or several times a day. About half of clerical, office, and sales workers also use the internet on the job several times a day at least. Service workers and those in the skilled trades are far less likely to report internet use at work (Madden & Jones, 2008). Use of the internet and digital media at work generally leads to more time spent working and more productivity overall—although, for sure, such behaviors as checking email and Facebook can pull one's focus from more productive

activities (this has been called *cyberloafing*; see Andreassen, Torsheim, & Pallesen, 2014). Research indicates, however, that when colleagues get to know one another via Facebook and social media, they are more satisfied with their jobs (Hanna, Kee, & Robertson, 2017).

Virtual organizations—sometimes called *distributed work groups*, *virtual teams*, or *knowledge networks*—are now prevalent. These online work groups and their mobile equivalents can be quite successful in helping spatially separated people accomplish tasks together. People can work on multiple projects with multiple teams online. Digital technologies like Skype and social media enable people to work and network together efficiently and effectively. The introduction of such technologies has provided sizable gains in productivity for many businesses (Volti, 2014, p. 194).

Some jobs are in danger of becoming obsolete in modern digital economies, though. Automated software and machines have replaced workers in clerical tasks and on the factory floor (Brynjolfsson & McAfee, 2014). ATM machines have displaced some bank tellers, bloggers have pushed out some journalists, online travel sites have supplanted some travel agents, and robots, already being used in manufacturing, may someday replace some kinds of personal assistants and even caregivers. Because some jobs can be done anywhere once digitized, they can be outsourced to other areas, including other countries, where they may be done for lower wages.

This trend depresses wages and the economy overall, as more people compete for fewer lower skilled jobs, and increases overall income inequality (Brynjolfsson & McAfee, 2014). It also shifts economic risk away from companies and organizations to the individual, who is now expected to adapt and to constantly adjust to new economic realities. While companies gain flexibility, employees lose job security (see Neff, 2012). This can be truly disruptive of people's lives, for there is dignity and purpose, not only wages and labor, involved in work.

However, while demand for less skilled labor may diminish in some contexts, demand for highly skilled digital labor is generally on the increase. People with digital design experience, analytic and engineering skills, and creativity in envisioning and implementing innovative technologies are sought in many fields. College degrees and even graduate education are required for many of these kinds of high-tech jobs (Brynjolfsson & McAfee, 2014). Education, reskilling, and the creation of new jobs are critically important in the modern technological age.

While some small companies have found great success doing business via the internet, overall, large corporations continue to dominate all major market

sectors—from automobile manufacturing to supermarkets. This is partly due to the difficulties that smaller firms have in penetrating foreign markets due to language and infrastructure problems, and partly because of the inherent advantages conferred by size and power: bigger budgets, greater access to capital, lower costs of production, and the expertise and resources to continually innovate and grow. While small internet companies can leverage social media and the power of networks to grow and scale in ways that would not have been possible pre-internet, and some (like Facebook and Twitter) can become wildly successful, most are squashed or sometimes bought out by large corporations and conglomerates. Competition is unequal in the internet age (Curran, 2012; Curran, Fenton, & Freedman, 2012). Many companies find they must adapt to or integrate new technology, or die (Brynjolfsson & McAfee, 2014).

It is interesting to note that when younger people enter modern workplaces, their digital skills are often different than those of some veterans of their occupation. They tend to excel at gathering information quickly (though not necessarily at assessing the credibility of this information), at completing discrete tasks, and at adapting to new, emerging technologies and reskilling (Rainie, 2006). At the same time, it should not be assumed that all young adults entering the job market are technologically skilled or, if they are, that those skills are what will serve an organization best. Sophisticated analyses and judgments often require experience.

Contacts developed online can help people find new jobs and new areas in which to become skilled, but it requires a certain level of access and digital literacy to know how and where to look for them. The exchange of information regarding work, including the most effective ways to work, is a primary use of social networks online. But we must keep in mind that this information is not equivalently available to all, so this is not a level playing field. And there are still many kinds of jobs, particularly those involving manual labor, which must be obtained in a more “analog” (i.e., traditional) fashion. The internet is by no means the only way to find and procure a job (see Fountain, 2005).

There is significant work/home spillover in the digital age, most often by those who use the internet or email on the job (Berkowsky, 2013; Madden & Jones, 2008). Fifty-six percent of those whose work requires them to be digitally connected report doing some work at home, and 20% say they do so every day or almost every day (Madden & Jones, 2008). Sometimes, this work is done after hours. One in five internet users says that internet use has increased the amount of work he or she does from home, and one in 10 says that he or she does more work because of the internet (Rainie & Wellman, 2012). Workers who use ICTs are “more productive, flexible, collaborative, and better connected,” Rainie

and Wellman conclude. “However, they also work longer hours and are more distracted and stressed” (2012, p. 177). This kind of stress can come from the extra work that those who use the internet for their jobs may feel that they need to accomplish, or it can be the result of the pressures of combining one’s work and home lives satisfactorily.

At any rate, the work/home boundary has become redefined (see Nippert-Eng, 1996). Many workers are accessible by employers, family, and friends at all times (or most of the time). Aspects of one role can impact or impede upon another; for example, a parent may become torn as to whether to tend to a child’s needs or meet a work deadline. Frequency of checking email and using Facebook and other ICTs on the job has been found to be associated with negative spillover in both directions. In other words, the more a worker uses the internet and digital technology on the job, the more difficult it may be to disengage from them when need be and attend to issues at home (Berkowsky, 2013).

However, ICT use in connection with work means that it is much easier to remain in contact with coworkers, clients, and people in one’s field or discipline than might otherwise be the case. Colleagues near and far can be contacted conveniently and fairly easily by email or social media, which can even lead to coworkers getting to know one another better and perhaps even becoming friends. Work in which digital social networks are developed has the potential to become warm, creative, relaxing, and highly companionable, filled with people available to give advice or support at a moment’s notice. This can help to stave off some of the more tedious aspects of work (Rainie & Wellman, 2012).

New modes of digitally enabled work, and the ongoing development of new norms and values surrounding them, are a challenge to workplaces and workers alike. We are living through a time of change and uncertainty. Increasing numbers of people can work anywhere and conduct business at any time. Without a given space in which to work, these individuals may have an especially difficult time “logging off” when they get home. They may feel that they should always be working, or they may come to view life as a continuous blend of home and work, without a firm boundary between the two. One might then do personal tasks at work and work tasks at home and find that there is not a big difference in these types of time. It may provide a competitive advantage *not* to compartmentalize work and leisure. While bringing work home can intrude on family or personal time, it can also allow individuals to get needed work done and advance their careers or make more money, which can benefit their families. The flexibility to work in different spaces and at different times can potentially have great value for people who are able to and who want to work somewhat nontraditionally.

education and libraries

Knowledge is growing at an exponentially accelerating rate. According to futurist-inventor Buckminster Fuller's knowledge-doubling curve, prior to 1900, knowledge doubled approximately every century. By the end of World War II, knowledge was doubling every 25 years. Today, different types of knowledge have different rates of growth, but, on average, human knowledge is doubling every 13 months and at some point may double as often as every 12 hours (Schilling, 2013).

To sort through all this knowledge and data, much of it specialized, requires higher-level understanding and skills that can be obtained in the course of becoming formally educated. To obtain jobs in modern technological societies, higher-education credentials are helpful. Workers with a high school education or less have seen a reduction in wages in the digital age, as mechanization has eliminated many jobs that once paid decent wages but required few technological skills (Volti, 2014, p. 194).

Education has been transformed in many ways by the internet and digital media. Computers and digital technology are found in classrooms at all levels. Informational materials, lessons, and whole curricula can be delivered in online *e-learning* (or *distance learning*) environments, and this has become a popular option for the delivery of educational materials. Additionally, "hybrid" or "blended" educational settings, which are partly online and partly face-to-face, are becoming more prevalent. Information about educational opportunities and offerings is plentiful online.

Colleges and universities are considered the primary hub for knowledge production and gathering in modern societies (Anderson, Boyles, & Rainie, 2012). Distance learning via digital technology is also critical to the long-term strategies of educational institutions, including approximately 70% of higher education institutions in the United States. About one third of college students have taken a class that is primarily delivered online, and three quarters of academic leaders and officers rate the learning outcomes as the same as or superior to those achieved in face-to-face classes. Online learning does not come easily to all students, though; it requires facility and skill with digital technology and a preponderance of discipline and self-motivation (Allen & Seaman, 2013; Ellis, Goodyear, Prosser, & O'Hara, 2006).

With digital and mobile media, learners can search for, find, create, and consume content on the go (Alexander, 2004). The culture of sharing and spreading information lends itself to prosumption in education, as members of learning

communities consider themselves simultaneously producers and consumers of knowledge. This is a much more active and engaged model for education than one in which learners are passive recipients. With numerous resources at their fingertips, learners can develop a deeper, more focused approach to learning. On the other hand, individuals can become distracted by tech options and social media and lose focus on tasks.

Many who use technology in teaching or who teach online report this to be beneficial, especially when instructors become actively involved in the experience and establish trusting relationships with students. Well-designed digital classroom environments have proved to be structured yet flexible (see Cuthbert, Clark, & Linn, 2002; Haythornthwaite, 2002; Renninger & Shumar, 2002; Young, 2006). Discussion boards, online journals, and classroom social media use can provide opportunities for interaction and networking among students, instructors, and even course authors. In one study, students who used Twitter in the classroom to share information and interact in a planned and structured way achieved markedly higher grades than those in a class that covered the same material without engaging with Twitter (Junco, Heiberger, & Loken, 2011). Overall, the use of participatory technological tools such as social media and blogs has been found to enrich student learning and engagement (Allen & Seaman, 2013; Ellis et al., 2006).

Classes can also now be “flipped,” allowing instructors to provide some of the content ordinarily provided face-to-face in the classroom in a digital space (such as via video lecture) for the student to view during homework time. This frees up class time for interactive lab work and other creative applications of that time. It also allows students to watch or listen to the digitized information as many times as needed at home. Digitally enabled educational activities, then, can be adapted to instructors’ and students’ needs and have been linked to higher grades and greater student satisfaction and motivation in both children and adults (Bennett & Fessenden, 2006; Cramer, Collins, Snider, & Fawcett, 2006; Guldberg & Pilkington, 2006; MacKinnon & Williams, 2006; van’t Hooft & Kelly, 2004). There is still much to be learned about online educational practices and how to reap their greatest benefits, though.

The very notion of what a school *is*, is changing and expanding in the digital age. Brick-and-mortar institutions now face digital competitors, some of which throw into question what schools should be and do (and whether they should financially profit for providing education). Public education has had a long tradition in America, even though inequalities in resources and delivery have seen outcomes vary widely. In recent years, however, challengers, such as for-profit universities and charter schools, commercial providers of lectures

and online educational content, online services like iTunes U, and nonprofit learning organizations like the Khan Academy, have shaken up the institution of education. A number of specialized training centers provide instruction and credentialing for trades and professions (Anderson et al., 2012). Massive open online courses (MOOCs) developed by universities and by other organizations are fascinating and controversial experiments in scaling the delivery of instruction and information exponentially. MOOCs seem to draw interest primarily among the already highly educated or high-income earners, even when the courses are free (Ferenstein, 2015). In short, schools, schooling, and institutions of higher education no longer resemble their counterparts of the early 2000s—or even 2010. That’s how fast some of these digitally influenced changes are coming about.

Libraries, too, have been transformed in the technological age. Libraries are systems in which information in both disaggregated and cumulative forms is organized and managed. They represent the knowledge of a society and the ability of people to access and contribute to that knowledge. The library is, therefore, a key institution for the preservation and advancement of democracy. About half of all Americans age 16 or older used a public library in some form in 2014 (Zickuhr et al., 2014).

Libraries and other systems of knowledge management face many challenges in the modern technological world since information has become digitized and plentiful and flows so widely and often freely. A library must respond to people’s needs for materials, skills, and the management of knowledge and must have a strategy to stay ahead of the technological curve regarding these issues. Libraries are also important public access sites for internet connectivity. However, public access users in one study saw the library as a rather undesirable place to use the internet. Women tended to associate the library with nostalgia for books and family. Male interviewees associated libraries with technology (Dixon et al., 2014).

Many libraries face serious fiscal challenges. Their funding is often decreased at the same time as they are expected to maintain services critical to the acquisition and sharing of knowledge. Providing internet access and digital services are expected. These offerings can range from online “Ask a Librarian” services and personalized reading recommendations to media kiosks and mobile apps. Librarians need to periodically update their skills in data management and digital information literacy and support ever-changing electronic educational practices. They also need to understand how customers access and use digital content, including the library’s own resources, on a number of mobile devices in a variety of formats. And digitized collections that can be accessed on numerous platforms must be constantly updated (Clegg, 2015; Zickuhr et al., 2014).

While digital technology has to some extent infiltrated and helped to transform teaching, libraries, and reading, print books remain central to these experiences. While more Americans than ever are reading e-books (28% of American adults aged 18 and older, as of January 2014), few have stopped reading print books entirely. Just 4% of American readers read e-books exclusively. But reading books and other online material via e-books and on the internet has become a primary way to access information, especially up-to-date information (Zickuhr et al., 2014). Interestingly, material consumed electronically rather than from print may be more difficult to absorb and remember. Studies have found that the placement of text on a printed page and the tactile experience of reading printed content helps people better comprehend what they have read (Flood, 2014; Mangen, Walgermo, & Brønnick, 2013).

Educational and learning groups can function as full-fledged communities when members gain a feeling of belonging and purpose, share knowledge, and develop an image of themselves as a unit. These communities then operate as social networks in which members work collaboratively, exchanging information, advice, and social support (see Cuthbert et al., 2002; Guldberg & Pilkington, 2006; Renninger & Shumar, 2002). But there are still many challenges ahead for schools, libraries, and learning communities, as access to a quality education is far from universal throughout the world, and digital access—along with a full understanding of the ways that digital technology can be used in education—is, so far, inconsistently realized.

politics and governing

It has long been hoped that the internet and digital technology would assist governments in serving their constituents. A government is tasked with maintaining and improving opportunities for its citizens in a centralized, organized way. Properly implemented, digital technologies could assist in the coordination of government agencies, increase efficiency, and help boost economic growth. In a time of fiscal pressures and burdens and, often, political unrest, this is greatly needed. Unfortunately, governments still often operate in inefficient ways and do not make the best use of the digital tools and strategies available to them. Thus, few governments have been able to benefit fully from digitization.

Government agencies (treasury, defense, education, social services) generally have distinct communication systems and infrastructures. They may use ICTs, but their systems are frequently separate from one another and uncoordinated, in part because the various bureaus do not want a loss of autonomy. The result can be “excessive government investment, often spread across or duplicated within a large number of diverse capabilities in different areas, and a support

system that fluctuates in response to changing political pressure and policies,” technology experts David Hovenden and Chris Bartlett report. “As with companies whose strategies are poorly aligned with the capabilities needed for success, this leads to a lack of focus on the true mission of the government or agency, and an inability to carry it out successfully” (2013).

The thoughtful integration and use of digital technologies can help governments meet these kinds of challenges. A strong digital infrastructure can enable governments to marshal their capabilities, bring agencies together, and develop cost-effective solutions to problems. The government can be a kind of broker for its constituent parts, bringing agencies together and into conversation with each other by using shared digital technology. Greater flexibility and lower costs would likely result, although security issues would remain. But so far these opportunities are largely ignored due to political constraints and the difficulties of making (and funding) changes to the status quo.

Smaller, poorer countries with limited resources face even greater challenges in implementing digital infrastructure initiatives. While they must operate in a global economy and society, their technology is often not up to the task. For example, countries in sub-Saharan Africa currently attempting to coordinate agencies and services digitally are experiencing overwhelming problems. Technological obsolescence, a concern for all organizations with a digital component and presence, is even more of a worry when resources are very limited. And the problems of capturing, maintaining, and preserving electronic records in a secure and sustained fashion are felt by all governments, industries, and organizations (Ngulube, 2012).

An even more comprehensive rethinking and redesign of governmental communication and information infrastructures—an *e-government*—is increasingly possible. The digital infrastructure of a nation can be rebuilt from the ground up, coordinating critical systems like citizen identification, record keeping, taxing, social services, and health care. With an entire system designed for digital interconnection, individuals can be afforded a measure of privacy and control over their data. The tiny country of Estonia has undergone just such a comprehensive rebuilding of its ICT infrastructure, proving that it can be done—albeit on a much smaller scale than would be possible in many nations (Tamkivi, 2014). And, as always, it should be noted that the security of so much interconnected digitized information cannot be assured.

Election cycles also favor short-term, not long-term, solutions to problems. Those who govern must often consider reelection strategies relatively early in their terms of office and may prioritize the consideration of issues that have simpler and more straightforward solutions. Tech issues are not always visible and

rarely have quick fixes. Additionally, some citizens are literally and figuratively cut off from these conversations due to their own lack of technology access.

Some governments use digital technology to keep tabs on other governments, political groups, and even their own citizens. Tasked with providing security for the citizenry, governments, including that of the United States, have viewed and listened to what people are doing by accessing and monitoring their internet activity, text messages, and/or phone calls. In the United States, this raises constitutional issues of whether such surveillance is legal when no specific threats have been made. The government generally counters with the argument that some monitoring is necessary in order to prevent and subvert danger, as was the justification for the mass collection of data of U.S. citizens authorized by the 2001 PATRIOT Act, legislation passed swiftly following the September 11, 2001, terror attacks. It is important for people to make their views on this type of surveillance known, for the larger issue—the appropriate scope of government involvement in the lives of its citizens—affects us all.

Technology also influences the ways that leaders are chosen to govern our societies. In the 1800s, when railroads were the primary means of long-distance travel, politicians would embark on “whistle-stop” railway tours of the countryside to meet the electorate. When television became prominent, it followed that the most telegenic candidates (beginning with John F. Kennedy) had a distinct advantage. Now that the internet and digital media have become such prominent parts of everyday life, candidates with the superior grasp of how to connect with voters online and on social media have a better chance of being elected. Social media specialists are now a key component of political campaign staffs.

President Barack Obama’s candidacy for U.S. president in 2008 was the first large-scale example of this to date. He entered the race a relative unknown in 2007, but his campaign’s shrewd use of social media introduced him in a lively, modern way to a large number of potential voters, many of whom became interested in politics for the first time. Perhaps even more significantly, social media was used to break down financial barriers and leverage interest in Obama in innovative ways—using YouTube, for example, rather than more expensive television ads, to present him to the electorate and providing ways for people to donate small amounts of money to the campaign (Discovery, 2012; Katz, Barris, & Jain, 2013).

The use of social media (particularly Twitter) by President Donald Trump during his U.S. presidential campaign of 2015 and 2016 and upon assuming the presidency in 2017 is perhaps an even more dramatic example of the power of social media in politics. Trump used social media, usually Twitter, as a platform to speak directly to the American voters and populace, sidestepping traditional media outlets and disrupting traditional practices of dealing with the press. This change is rather in line with his charge to disrupt long-standing practices

and patterns in general. Trump even communicates directly with world and national leaders, and members of his own administration and cabinet, publicly via Twitter, rather than privately, which can also have major implications for his relationships with them (and for U.S. global relations). The impact of such major changes will likely be felt for years to come, as candidates for elected office, including those with little prior political and governing experience, leverage social media platforms and audiences to meet new aims in new ways, establishing new norms along the way. It would not be a stretch to predict that our methods of choosing and electing candidates, their relations with the press, their methods of governing, and even democracy itself, may be in a period of transition and overhaul, with highly uncertain results.

In America and worldwide, social media use can open the door to less-experienced candidates and can jump-start fund-raising and political social movements in new ways. Social media is frequently used to express political views and to find like-minded others with whom to engage politically (see Chapter 5 for more on the role of social media in social movements). While surely some people change their political views after considering online political information, research indicates that most people's existing political views are merely reinforced after spending time online. People generally talk politics with those who share their views. The tendency *not* to speak up about political or policy issues when it is perceived that one's audience might disagree with those views is called the "spiral of silence," and it can spill over from online to offline contexts, making it less likely for people to discuss things that might prove controversial or divisive (Hampton, Rainie, Lu, Dwyer, Shin, & Purcell, 2015). This is also an example of *confirmation bias*: the tendency for individuals to be protective of their initial positions on a topic, even in the presence of contradictory evidence (Leeper, 2014; Maximino, 2014).

Information related to politics and governing is often highly charged and politically skewed; never more so than in the current environment (see Campbell, 2016; Himelboim et al., 2016). This is all the more reason to educate oneself on various issues and points of view. About 20% of social media users *do* modify or change their social or political views when exposed to new and different ones in the course of social media use (Anderson, 2016). The internet and digital media have the potential to remake political systems and governments in important and consequential ways. And one of the roles of their citizens is to call for these changes.

the media

The mass media, which include print media like newspapers, magazines, and books and electronic media like television, radio, and movies, are increasingly thought of, collectively, as constituting a social institution. In recent years, the

internet and digital media have begun to be included in the mass media when the role of the media as a social institution is invoked. Together, these means of communication have had an impact on the world that is nothing less than revolutionary.

While the government exerts substantial control over the mass and digital media in many countries worldwide, in democratic societies the media is considered separate from the institution of governing. It is organized as a market, not a state, system and is expected to be controlled and staffed by professionals who seek to be accurate, impartial, and informative. Although political power and the media intersect in different ways in different societies, American media and news reporting are often looked to globally as an example of the free and independent press. This independence has been compromised, though, by the media's domination by a small number of conglomerates.

A conglomerate exists when a set of companies that may not necessarily be similar to one another are owned by the same larger company. This has happened with mass and digital media companies across the globe, as most of them have become owned by certain parent companies. In 1996, the Telecommunications Reform Act was passed by the Federal Communications Commission (FCC), allowing radio and television stations in different regions to be owned by the same company and paving the way for continued deregulation in which a relatively small number of corporations could own more and more media organizations.

At this writing, six corporations in the United States—Disney, Viacom, News Corp/20th Century Fox, Time Warner, Comcast, and CBS—act as conglomerates, controlling 90% of what is read, watched, or listened to via the media. As recently as 1983, 50 countries owned the same percentage of television and radio stations, magazines, newspapers, movies studios, and the like. Today's media conglomerates even own some sports teams and theme parks. It has been estimated that 232 media executives control the information diet of 277 million Americans—that's one media executive to every 850,000 subscribers (Lutz, 2012). In other countries, the media is similarly concentrated in a handful of corporations or, in some cases, political parties.

This concentrated consolidation of media ownership is often critiqued as detrimental to the free and open exchange of information so important to a democracy. The potential exists for fewer points of view to be expressed as a predominant corporation sets standards of tone and content. It is also important to keep in mind that many media organizations are for-profit ones, with their main objective to make money rather than to educate or to serve the public

interest. Dominant points of view may not be contested, and censorship can result as these corporations favor special interests and profits over newsworthiness. The quality and diversity of the information that is shared can become sacrificed for standardization, a charge often made in a globalized culture.

Journalism and news dissemination have changed dramatically with the advent of the internet and digital technology, especially social media. Journalists and news organizations today work within a 24/7 news cycle—that is, they are expected to provide newsworthy information to the public around the clock, throughout the week. Twenty-four-hour cable news networks and online news sites are examples of this. While all-news radio stations have existed for decades, this relatively recent innovation in television (the first all-news cable network was CNN in 1980) has transformed the process of news gathering and dissemination because much more product is required to fill the time. It is also important for media outlets to entice viewers and readers to their product, as many of the outlets are profit-making organizations that need audiences to survive.

Some claim that the 24/7 news cycle and its voracious need for content played a key role in the election of Donald Trump. Cable news networks such as CNN, MSNBC, and Fox News have a lot of airtime to fill, and Trump's 2015–2016 campaign for president was an incredibly juicy story. This resulted in near-constant coverage of the campaign and its unconventional candidate's every move. The ethical and possibly legal troubles of his opponent Hillary Clinton, who had used a private email server in her home to conduct government business while Secretary of State under President Obama, was another story to which the networks devoted much time. It will be interesting to see how the highly dramatic presidential election of 2016—and the journey of a president (Trump) who had never held political office—will impact media narratives and content with respect to elections and governing in the near and distant future.

The structure of online internet-based journalism and news is also changing (Pavlik, 1997). While content can be reproduced on the internet in much the same way as it exists in print form, it can also contain hyperlinks that enable readers to access additional information. Online news stories can also contain original content designed specifically for the internet, include multimedia content, and permit readers to contribute by posting their own opinions, commentary, or even links to related information sources (Brunns, 2005; Chung, Nam, & Stefanone, 2012). In the early 2000s, these innovations culminated in the emergence of news blogs, which have faster production cycles, integrated hyperlinks, and user-generated content that creates alliances with other blogs and user-generated content sites (Weber, 2012). Digital journalism has not only evolved considerably from print and earlier online efforts but has also become a more communal enterprise.

Many news organizations now use social media and incorporate it into their work. Symbiotic relationships are formed that improve the strength and long-term success of the organization (Weber, 2012). Journalists must be engaged with the public, and people reading and following what reporters are doing on social media is a prime way for this to occur. Journalists, celebrities, politicians, and many other professionals also use social media like Twitter to promote news stories and to interact with the public directly. Video, photos, and posts and tweets contributed by audience members have also become sources of news and appear in news stories (Kim, Kim, Lee, Oh, & Lee, 2015). In addition, the dissemination of news, once solely the task of journalistic entities, now increasingly takes place via internet and social media content creators, resulting in the proliferation of media aggregation sites and even less formal information-oriented blogs (see Chapter 5). It can be quite difficult to ascertain the source and credibility of the information found in these varied digital spaces.

The number of adults who get their news from social media has risen sharply over the last decade—62% of American adults look to social media for their news, and 18% do so often (Gottfried & Shearer, 2016). In fact, because they are on social media so often and follow news sources, many people trust that the news that they need to know will come to their attention, that it is “out there” widely and generally (this is called *ambient news*), and that they need not actively seek it out. This passive approach to accessing and following news has been called the “news-finds-me perception,” and while it explains modern patterns of news consumption, it is linked to lower levels of political knowledgeability (Gil de Zuniga, Weeks, & Ardevol-Abreu, 2017).

While many consumers of aggregated news appreciate the ease and convenience of obtaining a variety of sources of information in one place, the practice can be seen as exploitation—even theft—of the original work of others. It has also weakened traditional journalistic organizations and the industry as a whole. In 2011, hundreds of U.S. newspapers ceased publication even as news aggregators were on the rise. Media diversity has been reduced, and misinformation can be easily amplified. Widespread reuse of information can create a “spiral of sameness” (Boczkowski, 2010, p. 174; Martin, 2014, p. 88).

As journalism faces reinvention and redefinition, digital and mass media have begun to assume some of the functions that other institutions have traditionally performed. Via the electronic media, people become educated, practice their religions, amass health and fitness information, elect candidates, follow and influence (and become influenced by) the practices of politicians and governments, and come together as families. These media are, therefore, a primary way that people learn about and come to understand how other social

institutions operate (see Silverblatt, 2004). Their practitioners, though, have been under some siege and have been called biased, failing, fake, and worse in the era of the Trump candidacy and presidency.

But because the internet is not currently centralized (and this does not mean that it could not *become* centralized at some point) and because ordinary people and citizen journalists can share information widely along its channels and networks, many alternative sources for news and information exist. These channels do not have the power that media conglomerates have, and they may or may not hold their content creators to high standards of accuracy, but they do represent potential and actual avenues for the free exchange of information. As we saw in Chapter 5, some nations endeavor to censor and shut down the internet, especially during times of internal turmoil, and there are no guarantees that even in the United States free access could be threatened. The net is not “neutral”; in many cases, powerful interests influence what is available and accessible, though the *net neutrality* principle argues that information on the internet must be made available to all, regardless of ability to pay. Social media and a variety of other decentralized internet forums for discussion and sharing provide an important alternative information flow to the media conglomerates.

The internet and digital media have made possible what can be called a *convergence culture* (Jenkins, 2006). Information and media flow across—or *converge* on—multiple platforms on the same time: television, books, social media, and online forums. As multiple media industries present different versions or aspects of stories, audiences can migrate from place to place as they follow or participate in a media offering. A single cultural franchise, such as Batman, *Star Wars*, the *Matrix* movies, or Harry Potter, can now be distributed through a range of media delivery methods. Audiences can actively search the form of entertainment experience they want. More stories can now be told over more platforms, reaching more people (Jenkins, 2006).

Because of media convergence, pop culture products attract and inspire a much greater degree of audience participation than has ever before been possible. It may be, sociologist Howard Becker has argued (albeit in a predigital era), more sensible to see cultural products as the joint creation of the artist, the audience, the industries involved, and even the distributors. Together, these are the elements of an “art world,” he says, and all of them are an integral part of the process of making and enjoying art in any of its forms (Becker, 1984).

In varied but important ways, all the techno-social institutions are experiencing convergence. Lines between home and work, government and business, media and commerce, and politics and religion are becoming so blended and blurred

that it is difficult to see them as separate. This can either lead to a sense of powerlessness in the face of change and convergence or to a desire to effect change in these areas and make a difference, perhaps using the internet and digital media to do so.

Clearly, we are seeing pronounced shifts in our social institutions. Though influenced by technology, these changes are less about the technologies involved and more about the cultures of which they are a part. Many aspects of modern life are shifting and converging, and individuals and societies are attempting to cope with and understand these changes. In the next chapter, we look at more of the pros and cons—the benefits and hazards—of living in a technology-saturated environment of continuous superconnectedness.