

# 3

## INHABITING A DIGITAL ENVIRONMENT

#### sociomental spaces, cultures, and societies

Human beings have always used media and technologies—whether they be cameras, print and electronic media, or computers and nobile devices—to build the environments in which they live and form their relationships. When these environments are digitized, they are always potentially portable. And since they can be accessed by mobile phones and other forms of portable technology (tablets, laptops, wireless devices, even wristwatches, glasses, and implantable computer chips), they can be constructed and carried along wherever an individual goes. Portability is one of the most salient features of a digital environment.

These spaces, and the activities, bonds, and connections formed within them, can also be described as *sociomental* because the connectedness is interpersonal (the *social* part) and relies on cognitive rather than physical activity for its creation and maintenance (the *memol* part). Even people in the closest of face-to-face relationships are sometimes physically separated, so all social connectedness has a strongly sociomental component. But social spaces in which numerous interactions and relationships are developed via a variety of cognitive acts are predominantly sociomental in nature.

One of the very first sociologists, Emile Durkheim (who helped establish the field of sociology), claimed that a society not only transcends the individual; it also transcends the physical. That is, societies are, at their essence, large, collective, nonphysical entities. Durkheim (1893/1964) taught that a society is a "conscience collective"—a collective, shared *consciousness* (mind, or awareness) and, at the same time, a collective, shared *conscience* (morality, or tool for determining right and wrong). Note the subtle but important difference between *consciousness* and *conscience*; in Durkheim's native French, the word *conscience* translates as both "mind" and "morality." This is important because it means that one of the all-time premier theorists of what a society is—someone who has influenced the thinking

of millions and who was a primary force in the development of sociology as an academic discipline—has theorized a society as being both mental *and* moral at its essence. For Durkheim, a society encompasses both of these nonphysical states simultaneously and indissolvably and thus (though he did not use the exact word) would be considered a sociomental entity.

A society is made up of the thoughts, ideas, information, norms, values, beliefs, and morals of all of its members. It is a veritable "soup" of mental ingredients, plus the material products created by its members, such as art, books, buildings, and clothing. Collectively, we call these mental and material products the *culture* of a society. People's lives shape, and are shaped by, these products in a process so penetrating and constant that those groups of people who share cultural products are often themselves called a culture. And yet a society, and a culture, is even more than all of this. Something special, almost indefinable, happens when human beings get together. A group "effervesces" and produces an energy, a force, a "vibe," all its own. It is not only mental and moral, it is alive with energy and emotion (Durkheim, 1912/1965).

Though the internet was centuries away from invention when Durkheim was alive, his insights set the stage for the sociomental nature of digital groupings to be better understood and for these grouping to be considered real, legitimate social units. Other sociological theorists including Georg Simmel (1908/1950), George Herbert Mead (1934/2009) and Charles Horton Cooley (1922/1964), wrote extensively about the strength consequences, and reality of *social, mental* groupings. Such groupings, they claim, are the bedrock of society, literally lifeaffirming and life-saving. People are far worse off (even more prone to suicide, Durkheim famously evinced [1897/1966]) when they are not firmly integrated within social groups and societies that have strong, cohesive *norms* (expected behaviors) and *v. inc.* (be refs).

All social connections and groupings, including those that originate face-to-face, exist in their most complete form in the minds of their members. Social groups are almost always either too large or too widely dispersed, or their participants too bust, for members to get together face-to-face more than occasionally (if indeed then). Just because a social bond or grouping can be described as face-to-face does not mean that the people involved in it spend massive amounts of time physically together. In fact, in a fast-paced, mobile society it may be the case that people do not gather together very often at all. But that does not mean that they cease to be connected when they are not gathered. Groups persist even in the dearth or absence of physicality and even as members come and go (see Anderson, 1983; Cooley, 1922/1964; and Simmel, 1898, on the persistence of social groups).

Digital spaces—social media sites, websites, chat areas, discussion boards, online games, workspaces, classes, conferences, and hangouts, even the spaces in which we share email and text messages—are sometimes called *virtual*. Digital work teams and organizations, in particular, are commonly described as virtual in nature. The use of the term *virtual* is misleading, though, for it implies that something is almost, but not quite, real. And where digital spaces are concerned, that is simply not the case. As sociologist W. I. Thomas has classically stated (in what has come to be called the Thomas Theorum), if people "define situations as real, they are real in their consequences" (Thomas & Thomas, 1928). Digital experiences and the spaces in which they take place are quite real and have real, definite consequences. For this reason, many consider descriptors such as *sociomental*, *networked*, and or *ligital* preferable to *virtual* in describing these spaces and societies (see Chayko, 2008; Dyson et al., 1994).

#### why not cyberspace?

You may have also heard digital space referred to as *cyberspace*. Activities associated with such spaces have also received the *cyber* prefix—for example, cybercrime, cyberpunk, cyberbullying, and cybersex. But many scholars are moving away from calling digital spaces *cyber*, and the story of why this is happening is quite interesting because it is the inventor of the word *cyberspace*, science fiction writer William Gibson, who now warns against its misinterpretation and misuse.

Remember, it was not very long ago that the online experience was brand new and highly unusual. In the 1980s and 1990s, people struggled to define and describe what was then a brand new experience. The most powerful description—the one that stuck—came from Gibson, who, in his 1984 novel *Neuromancer*; stated that when people use computers a "consensual hallucination" could emerge. This collaborative kind of hallucination would exist, he said, in "noticeal space" that seemed to be located behind and beyond the computer screen. Gibson called this environment *cyberspace* (1984, p. 69), borrowing the prefix *cyber* from *cybernetics*, which is the study of how various kinds of systems and networks function. *Cyber* has since come to suggest something computerized or modern, of the computer era.

In the early years of trying to understand and predict the impacts of computer use, it was important to have collectively understood concepts with which to describe it. It still is. But the conception of cyberspace as a "consensual hallucination" has become increasingly problematic over time because the experiences and

consequences of computer use are now widely understood to be completely real. Computerization is many things, but it is rarely hallucinatory.

Let's follow Gibson's thought process in some depth as he discusses where the term *cyberspace* came from and then consider the possibilities and limitations of the term. Gibson has said of writing *Neuromancer* that

I was painfully aware that I lacked an arena for my science fiction. . . . I needed something to replace outer space and the spaceship. I was walking around Vancouver, aware of that need, and I remember walking past a video arcade, which was a new sort of business at that time, and seeing kids playing those old-fashioned console-style plywood video games games had a very primitive graphic representation of space and perspective. Some of them didn't even have perspective but were yearning toward perspective and dimensionality. Even in this very primitive form, the kids who were playing them were so physically involved, it seemed to me that what they wanted was to be inside the games, within the notional space of the machine. The real world had disappeared for them—it had completely lost its importance. They were in that notional space, and the machine in front of them was the brave new world.

The only computers I'd ever seen in those days were things the size of the side of a barn. And then one day, I walked by a bus stop and there was an Apple poster. The poster was a photograph of a businessman's jacketed, neatly cuffed arm holding a like-size representation of a real-life computer that was not much bigger than a laptop is today. Everyone is going to have one of these, I thought, and everyone is going to want to live inside them. And somehow I knew that the notional space behind all of the computer screens would be one single universe. . . .

But what was more important at that point in terms of my practical needs was to name it something cool, because it was never going to work unless it had a really good name. So the first thing I did was sit down with a yellow pad and a Sharpie and start scribbling—infospace, data space. I think I got cyberspace on the third try. (as quoted in Newitz, 2011)

Computerization, of course, has since migrated from huge plywood video games and barn-sized consoles to interfaces that are smaller and more portable. But William Gibson's view of cyberspace as the universe "behind all the computer screens" was, and still is, critical to helping us envision, understand, and define the environment and the experience of becoming involved in computer use.

As Gibson himself has stated more recently, though, this universe has changed from this original notion, and dramatically so. "Cyberspace, not so long ago, was a specific elsewhere, one we visited periodically, peering into it from the familiar physical world," he wrote. "Now cyberspace has everted. Turned, itself inside out. Colonized the physical" (Gibson, 2010). In other words, Gibson notes, the space behind the screens has become enlargened and intersects with—even encompassing at times—the physical. Incidentally, Gibson believes that Google is the primary "architect" of this new universe (Newitz, 2011).

But a more damning critique of *cyber*, and therefore of *cyberspace* as a construct, is found within Gibson's own description of cyberspace above, in the first paragraph, in which he shares his sense that "the real world had disappeared" for the children playing computerized video games. This was an early view of, and a widespread worry about, computer-mediated communication (CMC) and internet use. Mass media and computer use were often seen as generating pseudo, imaginary, or parasocial (one-sided) connections rather than genuine, potentially reciprocal ones (see Beniger, 1987; Caughey, 1984; Gles, 2002; Horton & Wohl, 1956). As clear evidence of the authenticity of these connections and the reality of technosocial life began to mount up, though, it became apparent that cyberspace was anything but a hallucination, consensual or otherwise.

As researchers learn more and more about how real and consequential digital environments are, and how authentically they are experienced, the term *cyberspace* is becoming less and less precise a descriptor. Along with other *cyber*-prefixed words, it has become subject to misinterpretation. Phenomena described as cyber can too easily be seen as less than real, their qualities and consequences seeming to derive more from their connection to computerization than from the behavior itself. For example, cyberbullying can seem to be harmful *because of* the technology by which the behavior takes place, rather than due to the harassing behavior itself, which would be harmful delivered in any form. Cyber infidelity can seem to be caused by one's habit of spending time on the computer, rather than by the decision to betray a partner during that time, which many would find hurtful in any context. The *cyber* prefix implies that the technology in and of itself is what matters most about a tech-related phenomenon and causes its outcome, rather than the person using the technology, which, as we have seen, is called technological determinism.

Bullying, harassment, cruelty, and betrayal are harmful and troubling in any context—digital or face-to-face—and are the handiwork of humans, not machines.

At this writing, the term *cyberspace* seems to be fading from use (Rennie, 2012), but technological determinism is still very much present. Examining the range of ways in which people use and are impacted by digital technologies is a more fruitful course of action than blaming the technology. The adoption and use of terminology that encourages such examination would be widely beneficial. In digital contexts, as in all contexts, words matter.

### online communities, networks, and networking

Much research has been devoted to the study of how communities and networks operate in these digital, sociomental spaces. Community, perhaps the most sociological of all concepts (Wolfe, 1989, p. 60), is also one of the slipperiest. It can describe a group of people who live within a specific geographical area, and at the same time it can refer to the intangible, often highly emotional sense of belonging to such a group (see Bell & Newby, 1974; Chayko, 2002, 2008, 2014; Fernback, 2007; Gottschalk, 1975; Hewitt, 1989; Hillery, 1968; Hunter, 1974; Parks, 2011; and Scherer, 1972, for disc ssions of this distinction). It can also be appropriated by organizations hoping to reap the benefit of the term's warm connotations for commercial and marketing purposes (Baym, 2010, p. 74; Preece & Maloney-Krichmar, 2003).

But a community is far move than warm connotations. Both good and bad things happen in communities, and these things—and these spaces—are not always warm and fuzzy. To become and feel part of a unit larger than oneself, whether that unit has spontaneously arisen or been deliberately constructed, has a wide range of consequences for individuals. Being a part of groups and communities that we can turn to in good times and bad helps people live a balanced, healthy life, even as it provides that life with infinite complications.

Communities are constituted of, and provide for their members, regular, patterned, personalized social interactions. In them, people develop a shared identity, culture, purpose, and fate, and feelings of togetherness and belonging. All of this is critical to helping individuals find meaning in life and form interpersonal attachments. These qualities have been considered by sociologists to be key components of community since the earliest days of

the discipline. And the internet and digital media readily inspire and facilitate the creation and establishment of communities (see Cooley, 1922/1964; Durkheim, 1893/1964; Simmel, 1908/1950; and, more recently, Amit, 2002; Anderson, 1983; Baym, 2010; Bell & Newby, 1974; Bellah, Madsen, Swindle, Sullivan, & Tipton, 1985; Bourdieu, 1985; Chayko, 2002, 2008, 2014; Erikson, 1966; Fischer, 1982; Hampton & Wellman, 2003; Hillery, 1968; Jones, 1995; Kanter, 1972; Mazlish, 1989; Parks, 2011; Shibutani, 1955).

Online communities are "social aggregations that emerge from the Net. form webs of personal relationships" (Rheingold, 1993, p. 5). They can exist wholly online or can have a face-to-face component. When asked to describe the social groupings they form or encounter online, people often invoke the word *community*, as did the overwhelming majority of those whom interviewed in my Portable Communities research exploring the social dynamics of online and mobile connectedness (2008). They repeatedly referred to the online groups to which they belonged as communities, even though I did not use the word in my initial interview questions to them. Furthermore, these groupings were invariably described as close and meaningful. People responded to my questions about the experience of being part of such groups by saying things like "I feel I am part of a tight-knit community that cares about one another" and "My group is an extremely tightly bonded community that simply cannot be found in normal daily life" (Chayko, 2008, p. 7; see also Baym, 1995, 2000, 2010, p. 64-75; Joye, 2006, 2007; Cavanagh, 2009; Cerulo, Ruane, & Chayko, 1992; Chmiel et al., 2011; Haythornthwaite & Kendall, 2010; Kendall, 2002; Licklider & Tylor, 1968; Parks, 2011; Poor, 2013; Rotman & Preece, 2010)

Not all individuals form online connections and communities with ease. Some people seem to be more likely than others "to accept online friendship formation as possible, or even desirable," sociologist Zeynep Tukekci suggests in her study of friendship on social network sites (2010, p. 176; see also Tufekci, 2008). She calls those who form online connections less easily and less often the cyberasocial and notes that for such individuals, "face-to-face interaction has inimitable features that simply cannot be replicated or replaced by any other form of communication" (2010, p. 176). This does not mean that the cyberasocial necessarily refuse to use all digital technologies—they may be more comfortable using technology in some circumstances, such as to coordinate plans, more than others, such as to hang out online or to broaden their social networks (Tufekci & Brashears, 2014). It should not be assumed, then, that everyone uses digital tools and participates in digital contexts similarly, with the same aims.

Online groupings are so often considered to be genuine communities by those who create them in part because ICTs tend to give those who use them a very strong "sense of place" (Meyrowitz, 1985; see also Polson, 2013). Storytelling via oral and written communication is known for its *transportedness* (Biocca & Levy, 1995; Gerrig, 1993; Kim & Biocca, 1997; Lombard & Ditton, 1997; Radway, 1984). In providing forums for the telling and retelling of stories, social media specializes (as do the mass media of television, radio, books, etc.) in mentally transporting people who share similar ideas and interests to specific, similarly envisioned environments.

Stories shared via technological mediation tend to be envisioned as occurring in a specific place—often a neighborhood or a community (Kim & Biocea, 1997, Lombard & Ditton, 1997; Morley & Robins, 1995; Schwartz, 1981). Communal language and imagery are plentiful on social network sites, as in "Facebook helps you share and connect with the people in your life" (Parks, 2011, p, 100; see also Gere, 2012). The metaphor of the neighborhood or community gives members a common image they can use to make their digitally mediated experience more collective, more visible, even more tangible (Hampton, 2007, Lambert, 2013; Parks, 2011).

Online groupings, then, are readily referred to and experienced as communities. And "communities are clearly social networks," sociologists Keith Hampton and Barry Wellman contend (1999, p. 648). The development of social networks permits and encourages the emergence of group cultures and communities (Yuan, 2013; see also Adams & Allan, 1998; Amit, 2002; Cavanagh, 2009; Lee & Lee, 2010).

The study of social networks harkens back at least as far as the teachings of Georg Simmel (1908/1950), who at the turn of the 20th century wrote about the impact of a network's size on the nature of the interactions among its members. Simmel studied social units even as small as two and three (called *dyads* and *triads*) and considered them to be social groupings that can teach us a lot about how groups are structured and affect people. Simmel demonstrated, for example, that when a network expands from two to three, relationships in the network are changed most critically, for alliances and collusions become possible. The nature of the network can be altered by the number of people in it and by its form or structure even more than by its content or the specific nature of the activity people in it engage in (1908/1950).

More modern analyses of networking have contributed much to the understanding of how social networking operates online. In his study of what has been called the *small world phenomenon*, psychologist Stanley Milgram asked people to forward a letter intended for a certain person to someone whom they thought would most likely know that person. He found that it took on average only five or six forwards for most letters to travel to their destinations—a finding which has given rise to the phrase "six degrees of separation" (Milgram, 1967). Network researchers Duncan Watts and Steven Strogatz (1998) have applied this concept to different kinds of networks with much the same results, concluding that most of our human-created networks are well connected and interconnected (see also Boase & Wellman, 2006).

Barry Wellman, along with many of his students and coauthors, has pioneered the study of how digital social networks connect us both locally and globally (see, e.g., Boase & Wellman, 2006; Hampton & Wellman, 1999, 2003, Quan-Haase & Wellman, 2002; Wang & Wellman, 2010; Wellman & Findull, 1993). If societies are undergirded by a scaffolding of networks, as this (and related) research suggests, it makes sense that people would use the internet and the web to build and grow these networks. Individuals come to count on the resources, connections, and social capital that are obtained and exchanged via these networks. They then become motivated to create more and more networks and develop a strong reliance on them.

For those with access to mobile and social media, online networks and communities can be formed nearly my tiple, anywhere. They are especially popular in the United States, with over 72% of American adults engaging regularly in social networking online, including 89% of adults 18 to 29 and 43% of those aged 65 and older (Branner & Smith, 2013). In what Lee Rainie and Barry Wellman have termed *networked individualism*, people strategically operate, switch among, and use these networks as needed. "Networked individuals have partial membership in multiple networks and rely less on permanent memberships in settled groups," they explain. "Technologies such as the internet and mobile phones help people manage a larger, more diverse set of relationships. . . . The new media is the new neighborhood" (2012, pp. 12–13).

The strength of the ties and communities that connect people in high-tech societies is frequently questioned. In fact, both strong and weak ties—and everything in between—are found in online networks (Brenner, 2013; Ling & Stald, 2010; Wang & Wellman, 2010; Hampton, Goulet, Marlow, & Rainie, 2012; Hampton, Goulet, Rainie, & Purcell, 2011; Rainie & Wellman, 2012; Chayko, 2008; Haythornthwaite, 2005). The closest of relationships are built and sustained via digital technology, but more fleeting, ephemeral ties are in evidence as well. Most individuals' social networks contain hundreds of

social ties that are weak, strong, and in between and that are both face-to-face and digitally enabled (Caughey, 1984; Chayko, 2008; Hampton et al., 2011; Preece, 2000).

Even so-called weak social ties have great utility. As sociologist Mark Granovetter has established (1973), weak ties bring into contact people who might otherwise have no way to know of one another at all, thereby opening up pathways which eventually provide *all* members of one social network with access to *all* the members of a second network. Novel information and social capital move along these pathways from one set of people to another (Bakshy, Rosenn, Marlow, & Adamic, 2012; Haythornthwaite, 2005). Communities are dense with these crisscrossing pathways and networks, and they provide numerous opportunities for people to become connected online and offline, for new groupings to form, and, in all this connective activity, for societies to become more cohesive. In essence, networks help to "stitch" societies together.

### creating digital environments

People build their social spaces and environments anthey communicate with one another. Shared symbols, such as language, mages, sounds, gestures, and avatars, help people envision, build, communicate about, and understand the meanings of these spaces. Symbolic representations of other people (thoughts of them, images, photos) remind us of others when they are not physically with us so that we can continue to bond with them, even in their absence.

Members of groups create and use symbols constantly: sports teams and schools have slogans, logos, and representative colors; friends and families have favorite foods, nicknames, and carchphrases; and religions and nations grant great importance to icons, statues, pictures, and documents. These symbols, in effect, stand in for people and groups because a group is "too complex a reality" to be retained in the mind (Durkheim, 1912/1965, p. 252). Most modern individuals are part of many groups that cannot all remain in our minds all the time. So the symbol—like a flag or a logo—is "treated as if it were this reality itself" (Durkheim, 1912/1965, p. 252). It brings the group into the minds of its members whenever it is seen or deployed and does so so reliably that it inspires the same powerful feelings as the group does. It can even be treated as the group.

This is why people can become so intensely emotional at the performance of a symbolic gesture like flag burning or flag saluting or the playing of a religious or national anthem. Flags and anthems bring to mind the reality of a nation or

group so concretely and powerfully that they bring the reality of the group to the fore. The burning of a flag, for example, can feel like the actual destruction of the nation. Of course, whether we are face-to-face or online, we can never interact with an entire nation or even the entirety of a large group, but because the symbol stands in for it, we are still able to *feel* our sense of belonging to that nation or group—we can feel and appreciate its complex reality. We can feel community with others in the group even though the group is not, and may never be, physically gathered in one place at the same time.

Symbols, therefore, are critical to helping people to express and experience the reality of their digital worlds. Along with metaphors, they also help people explain their worlds and evaluate the comparability of items within them. This helps people determine their "place" in these worlds. Digital phenomena can be compared to books (Facebook), clouds (the nonphysical space where so much data are stored), streams (a flow of or mode for the delivery of data), bulletin boards (online discussion spaces), and town squares or forums (the Foursquare app, online message forums, etc). Even the web and the net are metaphors. Look for the many examples of this online—of physically separated people using metaphors that suggest physical objects or spaces. Metaphors and symbols help the individual imagine and envision things, people, and places that are otherwise abstract or invisible, and they also help groups of people envision them similarly.

However, metaphors are limiting as well, for they represent assumptions that constrain us from thinking about things differently. For example, thinking about data as being collected and stored in a seemingly airlike, remote "cloud" may prevent people from pursuing further details about exactly how their data are being stored and secured, and at whose hands. The casual use of metaphors, therefore, can finder more precise understandings of digital and data-related phenomena and the impact they can have (see Hwang & Levy, 2015).

Ritual activities performed by members of a group also bring groups of people to mind similarly and reliably. Activities performed periodically in ritualized ways religious services, holiday gatherings, parades, etc.), whether face-to-face or technologically, enable people to have regular interaction and involvement with one another. People who post updates to Facebook, Twitter, or any other social networking site frequently, or who text one another (perhaps in a group text) in a patterned way, open up a portal by which they can be reliably seen and contacted. This provides them with regular opportunities to view and exchange symbols with others and to have an ongoing sense of the group, which generates strength and coherence for the group (Chayko, 2002, 2008).

The mass media also assist in making digital spaces similarly envisioned and experienced. Television, radio, newspapers, and magazines (and even old-school media like billboards, posters, bumper stickers, flyers, etc.) can popularize and spread a group's symbols (even elevating some of them to iconic status), inspire rituals, and keep groups in the public (and their members') eye. Along with social media, the mass media depict actual members of groups engaging in activities from time to time (whether it be marching in protest, enjoying a concert, or attending a party). All this mediated activity can strengthen the group further and help bring it more concretely into members' minds (Chayko 2002, 2008).

A digital space called a *platform* is a computerized framework on which an application can run. Platforms can be blogging sites like Blogger and WordPress, social media sites like Facebook, Twitter, and Instagram, video-streaming sites like Netflix, Hulu, and YouTube, or audio sites like iTunes and Spotify. While platforms are initially designed from the top down, they are also shaped from the bottom up, each taking on a style, logic, and grammar—or vernacular—all its own. For example, the Twitter *hashtag* (or #) was developed by users rather than being "designed-in" (Bruns & Burgess, 2011). It then spread to other platforms, such as Facebook and Instagram, and is even used in face-to-face conversation, sometimes accompanied by a gesture intended to replicate the symbol. Platform vernaculars, then, are communally developed shared, and spread and are anything but fixed or static.

The hashtag, in which the # symbol is followed by a word or phrase, is a way for people to mark a topic of a moment in a digital environment and then identify and find others using the same word or phrase—forming, if one wishes, a kind of group with them. The hashtag facilitates the gathering of people in online spaces for "Twutter chats" and the communication and curation of information at conferences and other events. It is also used rhetorically in at least five distinct ways: to emphasize, critique, rally people together, identify characteristics of the writer, or iterate a well-known internet *meme*. Like other cultural artifacts, memes—representations of pop culture that can take the shape of a text, video, or photo with words that are often jointly created and remixed by multiple individuals—can evoke such a sharp or emotional response that they can spread widely and quickly through digital networks and be said to go *viral* (Bruns & Burgess, 2011; Daer, Hoffman, & Goodman, 2014; Milner, 2013; Zittrain, 2014).

In all these ways, digital spaces and the activities that take place in them are collaboratively envisioned and created. They are shaped and reshaped, individually and jointly, again and again, as people enter and exit these spaces and come to feel

a sense of one another as truly *there*. In the process, digital environments are given form, texture, contour, depth, and detail—in short, *reality*.

#### reality, presence, and proximity

Digital life is, simply, real life. The reality of living with technology, especially in computerized/digital form, is sometimes described as an *augmented reality* (Jurgenson, 2012a), which means that digital technology has enhanced, or augmented, the environment to a significant extent. For people who live in technology-intensive societies, this happens all the time. But the truth is that even before the age of computerization, life has been augmented by technology.

From the earliest of times, human beings have created tools that would enable them to build shelters, utilize fire, colonize the natural worldstransmit information to one another, and defend their territories—in short, to do whatever it took to survive. As we saw in Chapter 2, the invention of spoken and then written languages allowed people to make greater sense of the raw phenomena they encountered every day and to communicate in increasingly more abstract and complex ways across time and space. People have always used tools and technologies to build and augment their societies. In modern societies, all kinds of ICTs enable the transmission of concepts and ideas.

Online experiences, and the social connections and environments created with the assistance of digital technologies, are a critical component of modern techno-social life in which people's responses are genuine, meaningful, and often profound. When we are online, our brains and bodies think and feel and act. We may experience bodily fatigue or pain, worry or be delighted, make a friend or become involved in an altereation, strengthen a relationship or destroy one. What a person does online has an influence on the rest of one's life because it is *a part of* that life, not a separate thing. It is important, then, to think about and describe this environment in ways that highlight its realness—for example, *not* to call the face-to-face realm IRL (which means "in real life" and wrongly promotes the idea that the face-to-face sphere is more real than the digital).

In my interviews with people who find and form connections over the internet, I heard many descriptions of how unexpectedly deep and authentic these connections could become. For example, as a member of an online group dedicated to religion told me,

I didn't come (to this online group) looking for friendship, and am surprised at how some of the regular posters have become real people to me. Some of them just have a very personal way of expressing themselves that I've come to recognize, and sometimes, to like very much. This has nothing to do with spelling or mental brilliance or even depth of faith, for that matter. I think what draws me to some people here is their authenticity and their willingness to be imperfect. But even the ones I don't especially like have touched my heart to the extent that I sometimes worry about them and wish I could reach through the computer and help them, somehow. In fact, now that I think about it, it is amazing how real some of these distant, unseen, frequently anonymous message board posters have become. But, of course, they *are* real! (Chayko, 2002, p. 114)

The authentic and deeply personal nature of the connections and communities that are formed in digital spaces has been a common theme throughout my research.

People also told me that they felt that they could get to know very well even those individuals whom they encountered exclusively online, at sent any face-to-face interaction. In response to my request for a description of the "personal" nature of the online relationship, one young woman mused,

How can it be personal? It *feels* like it is. If people said, "Oh, gee, do you know so and so "I would say yes. I wouldn't say, "Oh well, I met him once. "Ya say, "Oh yes, I know him." (Chayko, 2002, p. 86)

Because online social connections are so often experienced as absolutely real and deeply personal, it is but anext step to perceive digitally encountered others to be *present*.

The internet and digital media facilitate the perception and experience of proximity and presence in ways that transcend the physical. When connecting online those with whom we connect are often perceived to be "really there." This sense that the other is "really there" is called *social presence*. According to the Social Presence Theory advanced by communication scholars John Short, Eleryn Williams, and Bruce Christie, a communication medium can provides its users several ways to become aware of one another's presence. They can know one another's qualities, characteristics, and inner states and begin to perceive and experience one another as socially present (Short, Williams, & Christie, 1976). This theory, which predated the internet and digital media, has since been updated to explain the variety of ways that people can use these technologies to be cognitively present to one another even as they are physically distant (see Chayko, 2002).

Feeling the nearness or presence of others across distances has been called perceived proximity (O'Leary, Wilson, & Metiu, 2014) and, when electronic media facilitates the connection, electronic propinquity (Korzenny, 1978; Walther & Barazova, 2008). In a large-scale international study, professors of business Michael O'Leary, Jeanne Wilson, and Anca Metiu found that colleagues working hundreds of miles apart from one another communicated as often, on average, as colleagues who were located in the same office. Additionally, colleagues separated by distance felt the same level of shared identity and sense of cognitive and affective closeness as those who worked together in the same location. Individuals at work, the researchers determined, can form strong bonds despite being separated by large distances.

Similar effects have been found when popular culture is the mediating element among physically separated people. Sharing common interests in a relevision show, movie, or type of music can bring about a strong sense of shared identity and community among devotees. They, too, can come to real that they inhabit a social world with one another. Cultural products and franchises that can inspire such involvement among users have an excellent chance of popular success. Communication and media professor Henry Jenkins calls this "the art of world making" (2006, p. 21; for more on this, see Chapter").

With the advent of digital and mobile technology, however, members of any group or "world" can enjoy *ambient copresence*—an ongoing but background awareness of the presence or nearness of others (Ito & Okabe, 2005, p. 264; see also Chayko, 2008, 2014; Gray et al., 2003; Quan Haase & Wellman, 2002). Portable devices allow users to keep their channels to one another open nearly all the time if desired, checking in on one another often and even leaving "away messages." These short, frequent updates convey that one is "there" (see Park & Sundar, 2015). It is becoming common for groups of people (especially younger people) to stay in near constant contact with one another this way via group chats, texts, and tweets (see Chayko, 2008).

Social media and blogs do much to enable a sense of presence among dispersed users. They allow the presentation of experiences and stories neatly and simply. They provide opportunities for individuals to share ideas, enter a conversation, and gain a sense of the presence of others in the conversation or group. Core members of social media and blogging communities, the most active participants in the group, are most likely to welcome new members or to monitor and enforce (formally or informally) the rules and norms of the group. Having had a stake in it the longest, they tend to take on the responsibility for safeguarding and communicating the group's collective memory and identity. But even those who

lurk in the group or participate less actively help to shape it and can have their presence sensed (Chayko, 2008).

Often, ambient copresence takes place in spaces defined either formally or informally as online "hangouts"—the kind of spaces in which people can spend unstructured time with few (or no) obligations and responsibilities. Over 70% of adult U.S. internet users go online at least occasionally just to pass the time or to have fun (Rainie, 2011). They may pass the time leisurely lurking or hanging out on a social media platform like Facebook or Twitter, checking out a discussion board, visiting a chat room, playing a game, reading a blog, spending time in a Google hangout, or some combination of these. It is possible to spend large amounts of time in such spaces, entire days and nights, just hanging out, checking out what others are doing and saying—not necessarily interacting with them but still sensing others' presence in an ambient way, feeling a sense of perceived proximits and community with them. "I just like being there," one woman told me, describing her affinity for an online hangout, "and I don't know why" (2008, p. 30).

Sociologist Ray Oldenburg calls these kinds of hangouts *viril spaces* (1989). They are places other than homes and workplaces—the first and second spaces—in which people spend time and relax, usually without a fixed agenda. While Oldenburg focuses on casual offline places, such a coffee shops, pubs, beauty shops, etc., the concept is quite useful to also describe the kinds of informal online spaces in which people simply hang out. And such spaces are plentiful.

Hangouts, both physical and digital, are important because they provide a space for people to spend unstructured time in the company of others. They permit individuals to engage different aspects of their lives and identities than they do at work and at home. By spending time with those who are like-minded, simply experiencing a sense of shared identity and culture, individuals can feel known and accepted.

Presence in third spaces is optional and voluntary and there are no requirements. In them, people can get to know one another (or not) in a low-obligation, low-pressure way. Spending time in third spaces can help people relieve everyday stresses while they make contacts and feel a sense of community. Being around others in this kind of environment can help people relax, since the kinds of obligations that exist at work and at home are absent. They can also make the individual feel part of the larger society, part of the culture, connected to others.

Lurking or participating minimally, or lightly, in third spaces can provide the opportunity to be part of a larger dialogue, to gain a sense of others and their conversations. It also provides that all-important, life-affirming feeling of being

"plugged into" or integrated into a society (we discuss this in greater depth in Chapter 9). Because it is so critical for people to feel connected in this way, it is generally healthy to spend some time in third spaces, and so these spaces can be seen as good or "healthy" for the society as a whole. Spending too much time in them, though, can certainly represent or lead to an unhealthy escape from offline responsibilities.

Sometimes, to be sure, people do not feel the nearness of others when they are online. They feel solitary, alone. But more often, they feel proximal and connected, part of meaningful social worlds. And, as it turns out, the brain is wired to consider these social worlds to be fully and completely real.

#### reality and the brain

The mind and body are intricately connected. They affect one another continuously, as can be seen in physical illness that derives from psychological disturbance, or in mental confusion that results from physical fatigue. Our minds and bodies "talk to" and inform one another all the time. They are a unit, finely meshed (Chayko, 2008, p. 41; Goleman, 2000).

The brain considers both digital and physical forms of connectedness equally real. Mental images that correspond to all kind of experiences—whether physical or digital in nature—are recorded in the same part of the brain. The same exact cognitive processes are used to encode, process, and retrieve these images, whether they originated in physical experience or in mental experience. This is how we can sometimes be unsure whether something in our past actually happened or whether we simply imagined that it occurred. As brains store both physical and mental phenomena in the same way, in the same place, they "code" physical and mental phenomena as equally real (though, like all body parts, brains are also imperfect and fallible; see Chayko, 2002; Neimark, 1995).

Human beings can respond to both digital and physical phenomena in similar rays as well. Once an event has occurred—whether in physical or sociomental space—it becomes interpreted and assigned meaning. Realness—or degrees of realness—can be assigned to any event. Individuals can also identify different types or spheres of reality as being meaningful and consequential. These realities—which include the "reality of everyday life," dreams, fantasies, games, fiction, religious experience, erotic experience, and even drug-induced states—each carry their own norms, rules, and logics and can feel entirely (if temporarily) real (see Berger & Luckmann, 1967; Caughey, 1984; Davis, 1983; James 1893/1983; Schutz, 1973). "We live not in one reality but in two (at least)," sociologist Murray

Davis notes of everyday life, "and we continually alternate between them, often against our will" (1983, p. 10).

Furthermore, the brain and body often respond to mediated and digital events in the same way that they would respond to those that take place face-to-face. When watching TV or a movie, reading a book, listening to music, or using social media, it is common to become so cognitively and emotionally engaged in the event that the body responds as if the event were unmediated. The brain's cognitive and perceptual systems prepare the body for the situations that are confronted, and, physiologically, the body and brain respond. We cry, we laugh, we sweat, we there we move our bodies (Bellur & Sundar, 2010; Reeves & Nass, 1996).

People can even on some level come to perceive their computers and cell planes as interactants with whom they have a relationship and can respond to them in kind (Chayko, 2002; Reeves & Nass, 1996). Voices (like the iPhone's siri), images (like an avatar), and actors and others who appear on inedia screens can be cognitively and affectively encountered and sometimes even communicated with. These perceptions can easily resemble those of human-to-human interaction and relationships.

Robots and *bots*—humanlike machines and web based software applications that run automated tasks—are becoming in some cases interactive and seemingly personable. Such machines and applications can be comforting and help people cope with challenges and even provide some forms of social support (see Kellerman, 2012), although there are hints to the types of communication that the artificial intelligence of computers can perceive (Siri, for example, cannot detect sarcasm; see Zawacki, 2015). Despite the rich, seemingly human interactions enjoyed by the fictional protagonist Theodore and his computer's automated intelligence system sangutha in the movie *Her*, or the relationship between Caleb and the robot Ava in the movie *Ex Machina*, computers and software as currently configured lack the human experiences and understanding of emotional subtext necessary for communication to be deep, nuanced, and truly human.

Stil, people can engage in meaningful ways with digital technology and especially those machines that are most realistic. Robot dogs, dolls, and toys have been known to comfort those who spend time with them—particularly those in greatest need of comfort, such as the elderly (see Turkle, 2012a). People report that their children with special challenges and needs have been helped through digitally mediated interaction. Parent Ron Suskind, for example, has described how his autistic son came out of his shell through engagement with Disney characters, while Judith Newman has written of how her autistic son Gus's conversations with

Siri improved his communication skills and provided him with companionship (Newman, 2014). Newman reports that Gus's practice conversations with Siri have resulted in increased facility in interacting with human beings. So many people now indulge in conversations (whether playful or serious) with these kinds of digital tech "assistants" that SRI International, the research and development company behind the voice of Siri (now owned by Apple), is focusing research efforts on enhancing the ability of the assistant to engage in even more complex and realistic conversations (Newman, 2014).

For the most part, those who use such technologies understand the difference between physical and mediated realities. Judith Newman makes it clear that her son Gus is well aware that Siri is mechanized and not an actual human Fieronal characters and disembodied tech voices are generally encountered as created constructions that retain a strong element of reality. One can be well aware of but still "play with" the difference between fiction and nonfiction. In enjoying fictional or mediated experiences, it is common to play freely and flexibly with the concepts of reality and fantasy. In other work, I have theorized that mentally approaching fictional characters as real heightens the pleasure of the fictional experience and can even provide a practice space for making and maintaining digital relationships with real people (Chayko, 2002; see also Chayko, 1993; Jenkins, 1992; Harrington & Bielby, 1995).

Some people claim that digital exchangents are rife with deception and hence less real than offline spaces—that the relative anonymity found in many digital spaces breeds deceit, falsity, and danger. Indeed, deception is a possible outcome of digital tech use, given that face-to-face accountability is diminished. Other possible negative outcomes include nasty or hurtful verbal exchanges, harassment, the causing of physical harm, stalking, identity theft, drug sales and trafficking, and a greater availability of pornography and sexually oriented material. It is worth remembering, though, that these behaviors exist in physical space as well—albeit in different ways, with different social dynamics and outcomes.

Deception and secrecy are common in the physical world and so would be expected to exist digitally as well (see Baym, 2010). People lie to one another frequently—multiple times nearly every day, by some estimates (DePaulo, 2004; Feldman, Forrest, & Happ, 2002; on secrecy, see also Nippert-Eng, 2010). This kind of behavior occurs online and offline. But conscious, deliberate attempts to deceive others online, and the taking on of different identities, do not occur to the extent that many worry about (Baym, 2010). When gender switching takes place, for example, it is usually a role-playing or game-playing experiment rather than an act of deliberate deceit. The majority of those online do not undertake

experiments in which they take on a different gender identity, and most of those who do abandon the practice (Roberts & Parks, 1999; see also Martey, Stromer-Galley, Banks, Wu, & Consalvo, 2014). For the most part, when people interact online, they do so as themselves, carrying with them their identities, personal values, and standards (see Chapter 6).

In Western society, the mental realm tends to be stigmatized relative to the physical, so people often do not consider mental phenomena to be as consequential as the physical. The mental is still often seen as not *really* real—mental illness, for example, is less well understood than physical illness; it may not even be covered by some insurance plans because it is not considered "real" illness. When people say that something is "all in your mind," it is implied that something authentic is absent. But this is a false and even dangerous bias that minimizes or discounts people's lived experiences.

It simply isn't helpful to think of digital, mental activity as a species separate from, outside of, or less than real life—not when real life (whatever that is) is drenched in cognitive activity. It is a false dichotomy. The mental *is* real, and it is all around us, not just in our heads. And the physical and the mental are inextricably enmeshed. As a result, online experiences can be as richly emotional and deeply intimate as those that directly emerge in face-to-face interaction.

#### emotionality and intimacy

It is common for time spent online to have an intimate, emotionally rich dynamic. Intimacies and emotions are exchanged profusely and nearly instantaneously online. In fact, they serve as a kind of "glue" for the relationships that form there. This "emotional glue" is especially important in the absence of the "physical glue" that face-to-face interaction can provide.

Digital environments and the experiences created in them can be extremely, pethaps surprisingly, intimate. As social creatures who desire interpersonal closeness, human beings are highly creative in finding and forging intimacy, including in digital settings. While a wide variety of types of relationships can form online, spanning the spectrum of human intimacy, even the most fleeting of relationships can be highly intimate when those involved disclose a great deal about themselves and feel that they have come to understand much about the other person as well. It is this kind of personal disclosure and understanding, and the positive progression of a relationship (even if it does not turn out to

be especially long term) that render it intimate and meaningful. Short-term relationships can be highly intimate, just as they can be offline.

The human need and desire to form intimate relationships is so strong that it happens all the time online, often without great difficulty. Mobile and social media play a big part in this. Since many people take cell phones with them wherever they go, they can use small bits of time to check in on others and/or provide updates, whether by Facebook or Twitter or some other social media platform. Interestingly, this is how intimacy tends to develop face-to-face as well—in the small, everyday moments of connection as much as in grand gestures and experiences. And with a device with which to connect and network always at one's side, it has never been easier to remain in constant contact with others even a large number of others, and to find that intimacy has developed, sometimes quite unexpectedly and swiftly (see Chayko, 2002, 2008; Fortunati, 2002; Fox, 2001).

The emotions that arise in digital environments are those that sociality inspires in all of its forms. Feelings of warmth, belonging, intimacy even excitement are commonly generated online. Fear, anger, and disgust are dicited as well. A surge of emotion often arises when two or more people feel that they "click," whether online or offline (Baker, 2005; Chayko, 2008). This feeling can be so strong and satisfying that to obtain it can be central to people's desire to use social media (Chayko, 2008; Chmiel et al., 2011).

I have termed these emotional surges "the rush of human engagement" because they are generated in and by the human engagement so often sought and found online. In my research, many described it exactly that way—as a "charge" or a "rush." People told me of crying real tears when learning of a tragedy online, experiencing a surge of excitement upon getting good news or receiving just the right text at the right time, becoming angered or enraged when a negative comment was placed on their blog, or becoming downright giddy when an online exchange became flirtatious or romantic. These waves of emotion can provide "a tush that I really can't explain," as one online connector described it to me (Chayko, 2008, p. 77). According to another,

It's great when you find somebody that loves the book that you love. The feeling is kind of "Oh, wow!" Or "Oh, me too!" . . . I think it's cool. I think it's neat. And I like those kind of connections. And I have even tried to sort of cultivate them. . . . ["Can you describe these connections for me?" I asked.] Oh, they're definitely bonds. (Chayko, 2002, p. 70)

In short,

Sometimes when I get back to my room I just move the mouse and go to my favorite site and check my profile, and it's like someone has left me gold or something! (Chayko, 2008, p. 62)

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This rush of excitement can be similar to the rush one gets from drugs, sex, gambling, chocolate, and other things that activate the pleasure centers in the brain. (For more on how this works, see Chapter 7.)

MIT internet scholar Sherry Turkle claims that people sometimes turn to information and communication technology when they *want* to feel conething. They use the technology as a kind of conduit for emotion and use it to express love, hate, fear, rage—basically any mood imaginable. People also go online to moderate or to try to control their moods and emotions (see Chayko, 2008).

But this doesn't always happen—and in fact there is great unpredictability in people's emotional responses to digital connectedness. Sociality, in any form or context, can generate the full range of human emotions. Human interactions are messy, unpredictable, and fraught with risk. There is plenty of sadness, anger, disappointment, and conflict online, as these are human responses to the "dance" of interaction. Examples abound of sad, unfortunate, even fatal outcomes—for example, relationships that have enteed at the suggestion of online infidelity, or lives that have ended when online bullying or public embarrassment became too much to take. Events that take place in a digital environment have profound consequences for people and are inordinately, undeniably, real.

#### so, what about physicality?

It is sometimes hard to understand how community, social presence, emotionality, and intimacy can be experienced when physical cues are absent or diministed in digital environments. If we can't see someone's face (which is often the case online), or touch a hand, or meet up for a date, can we really become natimately connected? As it turns out, people are quite creative when it comes to forming social connections and building social environments in which they do not physically interact or even see one another.

It seems strange to some that connections can form without the full benefit of external cues—without tactile or in some cases visual and aural information.

Communication researcher Joseph Walther (1996), among others, has theorized exactly how people make sense of (and make social connections in) *cues filtered out* situations. He argues in what has been called the Social Information Processing theory that people who use their other senses and their limitless creativity to adapt their interactions accordingly and even without physicality can find out enough about one another to forge connections and potential intimacy.

People can learn quite a lot about others even if they only communicate textually. "Even with nothing but text, we can still tell a great deal about people from the language they use—their vocabulary, their grammar, their style." language and communication researcher Crispin Thurlow and his colleagues have found. "Besides, if we can't actually see social cues like age, sex and tooks, we can always just ask. . . . This kind of direct request would seen pretty rude in [face-to-face] communication but it's considered acceptable in [computer-mediated communication]" (Thurlow, Lengel, & Tomic, 2004, p. 53; see also Baker, 2005). There are many ways to gather information about one another online, as we discuss in Chapter 6. People provide clues to their personalities in their nicknames, avatars, writing style, and in the design of their platforms and sites. In fact, when individuals go online with an eye toward possibly making a social connection, these kinds of fact-finding activities are among the first things they do.

Individuals can actually get to know one another *better* when their initial contacts are digital as opposed to face-to-face. They can like one another more and even gain a more accurate view of one another when visual cues are absent or reduced (Baker, 2005; McKenna, Green, & Gleason, 2002). Some people find the physical body to be a distraction and that in its absence they are better able to form honest, authentic lelationships. "When we talk to someone in person," says psychologist Katelyn AcKenna, "we pay attention to their subtle body language and facial cues that let us know how we are coming across. This fosters reticence in fully expressing our thoughts and feelings" (as quoted in Chayko, 2008, p. 46). Thoughts and feelings may be more easily, comfortably, and authentically shared when physicality is absent.

Some people communicate more freely about themselves in the absence of the physical. Put another way, the physical presence of a body can distract from the effort to get to know another person. Closeness, involvement, even attraction can be enhanced when people are not in one another's physical presence (Chayko, 2008; Hian, Chuan, Trevor, & Detenber, 2004; Hu, Wood, Smith, & Westbrook, 2004; Nowak, Watt, & Walther, 2005; Walther, 1996). A relationship can grow strong and intense even more quickly than when the

interactants have met face-to-face. In fact, online relationships can be even *more* intimate and personal than those conducted primarily face-to-face. Joseph Walther calls such relationships *hyperpersonal* (1997).

When people are in contact without being able to see or touch one another, they can become *disinbibited* (Suler, 2004; see also McKenna et al., 2002). Their inhibitions can be lowered and their behavior can become a bit (or a lot) more outgoing or daring. Disinhibition can be even more pronounced if individuals do not share their names or personal details online and are anonymous to one another. They may find themselves behaving differently than they would face-to-face—perhaps sharing personal information more quickly, even illadvisedly, perhaps becoming thoughtlessly negative or nasty, perhaps becoming spontaneous, impulsive, wild.

Darkness, too, favors disinhibition. For many, face-to-face intimacies are more easily shared in darkness, especially late at night, than in the midday sun. They may feel less embarrassed, less self-conscious, than they or dinarily might. They may behave more freely and "open" themselves up more quickly, more intensely. Even in face-to-face copresence, some individuals avert their eyes when discussing something extremely personal and emotional or when they do not wish to be visually confrontational (Suler, 2004; Thurlov et al., 2004). In fact, people who meet in a darkened room tend to disclose more personal information to one another and even to like one another more than those who meet initially in the "light of day" (Gergen, Gergen, & Barton, 1973; McKenna, Green, & Gleason, 2002).

There are certain similarities to meeting in the dark and online. Reduced physical cues can replicate the openness and intrigue of darkness and nighttime. The absence of a physical presence can contribute to an environment in which information and intimaties are more easily shared. This can promote closeness and social connectedness.

Furthermore, digital and mobile media allow people to connect at odd times of the day or night and in odd places. This, too, is conducive to the development of intimacy. It is common to prefer to be in a private, out-of-the-way setting when charing something very personal or private. There is something about finding someone else online in the middle of the night and reaching out to him or her that makes the moment a bit out of the ordinary and imbues it with specialness. This is similar to the "meeting on the train" phenomenon, in which people confide secrets to a total stranger whom they do not expect to ever see again simply because the setting lends itself to the sharing of intimacies. The repurcussions of such sharing may seem lower or be temporarily ignored (McKenna et al., 2002).

Technologies are continually being developed that approximate or reintroduce visual and sensory elements of the face-to-face experience to online or mobile connecting. The sharing of photos and videos has exploded in popularity on social media. But some still prefer the greater anonymity and clarity of text-based exchanges, especially for use in the early stages of relationships. Some shy away from using webcams in internet dating, psychologist Jeff Gavin has found, because they prefer to delay seeing their partners face-to-face. "There is something special about text-based relationships," he says (ScienceDaily.com, 2005).

Many of those whom I interviewed agreed. This thoughtful perspective came from a member of an intellectually rich and engaged online community:

It could even be argued that we are engaging on a deeper level than we would be able to if we were face-to-face A lor of things get lost and misconstrued in oral arguments. With this, everything is in writing. One often edits and rephrases for clarity. Putting things down in writing is far different than just blurting something aloud. Many posts only come after much reflection and a sorting out of thoughts. So although we miss the tones and facial expressions of the people with whom we are communicating, it could be argued that we are still communicating on a more profound level. (Chayko, 2002, p. 122)

Many people told me that there was something uniquely valuable and intimate about getting to know a person in a nonphysical sense before (or instead of) sharing physical space with them.

At a certain point, of course, to enjoy certain satisfactions people must meet face-to-face to share the full range of sensory experiences with one another—touch, smell, taste, physical nearness, bodily contact. Personal accountability is generally enhanced as well when people are face-to-face with one another. One concern about nonphysical connectedness can be put to rest, though, and that is the worry manimum enet-enabled relationships will somehow replace or substitute for face-to-face relationships. Rather, the online and offline tend to intersect and mesh in people's everyday lives and be experienced as a blended whole.

#### the intersection of the online and the offline

It is tempting, and quite common, to assume that what we do online happens at the expense of or displaces the offline (as detailed and critiqued by Boase & Wellman, 2006; Rainie & Wellman, 2012; Tufekei, 2010, 2012; and Wang & Wellman, 2010). Research paints a very different picture of how people use digital communication technology, however. Certainly, some people who are lonely gravitate toward the internet (Amichai-Hamburger & Ben-Artzi, 2003), and some become so immersed in their online connectedness that their wellbeing suffers (LaRose, Eastin, & Gregg, 2001; Morgan & Cotten, 2003). This is not the norm, however.

Most people utilize online connectedness to build, bolster, and give new dimension to face-to-face interactions and communities. They choose their online friends from among their offline contacts and use both mediated and face-to-face means to sustain all their relationships. As we explore in depth in Chapter 6, it is common for groups and relationships to exist in spaces that encompass both the online and the offline (see Ellison et al., 2009; Hampton et al., 2011; Haythornthwaite & Kendall, 2010; Rainie & Wellman, 2012) Online activities fulfill a wide range of needs, gratifications, and desires and are experienced as part of, not separate from, one's lived experience (see Bayin, 1993, 2000, 2010; Jurgenson, 2012a, 2012c; Katz, Haas, & Gurevitch, 1997; Kayany, Wotring, & Forrest, 1996; Walther, 1996, 1997).

One's lived reality with technology is generally experienced as a blending, a mixture, of the online and the offline, rather than as one or the other (Baym 2010; Beer, 2008; Cerulo & Ruane, 1998; Floridi 2007; Jurgenson, 2012c; Kendall, 2010). We do not tend to separate our lives into online and offline—or experience things as either digital or face-to-face. Social media theorist Nathan Jurgenson calls this separation *digital dualism*, and, as he and other thinkers have noted, it is both an artificial and unnecessary separation of realms that are actually enmeshed (2012c). While qualities and characteristics of the online and offline realms are surely different—a strile given or received in physical space is not at all the same thing as encountering an emoticon online, for example—the realms in which these experiences occur are not in opposition to one another. They are simply different aspects of lived experience that swirl around and intersect with one another, coagulatings in a sense, to become, simply, our realities—our lives.

Just as using new technological devices or platforms is usually confusing or clunky at first but becomes easier with time, digital technology tends to be integrated and folded into the everyday life of people in tech-rich communities and societies. This can happen so seamlessly that people can forget about or ignore the technology that has mediated the experience and simply focus on the experience itself (see Floridi, 2007; Rainie, 2006; Thomas, 2006). In doing so, they gradually adapt to those new technologies that become part of their everyday lives and

become used to the way that their lives have become impacted and augmented by technology (Jurgenson, 2012c).

To consider the online and offline wholly separate spheres and engage in digital dualism is to also ignore or minimize their high degree of interpenetration. "It is because social media augments our offline lives (rather than replaces them) that research shows that Facebook users have more offline contacts, are more civically engaged, etc.," Jurgenson argues, for "the online and offline are not separate spheres and thus are not zero-sum" (2012c). Indeed, offline activity fuels online content and expression; many individuals now spend significant time and energy considering how they may document online what may be happening in then lives offline (Jurgenson, 2012a; see also Ess, 2011). It should also be kept in mine that face-to-face interaction is not always inherently satisfying or best suited to every task (Calhoun, 1986). Obtaining and sharing information, resources, and certain kinds of support are often accomplished more effectively of line than offline.

Those who have grown up immersed in the internet and digital media use may see the online and offline as melding seamlessly. Youth may be ushering in an era in which distinctions between the online and offline, and the real and the unreal, are becoming deeply blurred, if not obliterated. The worlds of young technology users bleed together, information technology professional Charles Grantham observes. "It is pretty useless to draw borders around different spheres of life for them" (as quoted in Rainie, 2006, see also Baym, 2000, 2010; Cerulo & Ruane, 1998; Ess, 2011; Ito et al., 2010; Thomas, 2006; Wilson & Atkinson, 2005).

Digital environments are so fully enmeshed with the physical world that one need not even be online to feel the impact. Even when spending time offline, perhaps enjoying a quiet, tech-nee day in a natural setting, people can be influenced by their use of the internet and digital media. They may decide that they will document the experience with a photo (or several) that they plan to share later, mentally construct a status update they will later post on social media about the offline experience, or perhaps send a quick text message. Jurgenson calls this viewing the world with a "Facebook Eye"—thinking about how lived experience night translate to a future post, tweet, or update (2012a).

This kind of activity is common in a society rich in technology. Technology can be so deeply integrated with so many aspects of life that it is almost as though the tech has seeped inside the person, cyborg-style. And indeed to a certain extent, due to its frequent use, the tech *bas* seeped in—mentally. The online–offline enmeshment is cognitive as much as it is experiential. In a tech-rich society, it may be difficult at times to truly "log off," for the brain may remain "logged on."

Because so many in technology-rich societies spend so much time and energy in digital environments, conceptualizing this experience is critical to understanding modern social life. As we have seen in this chapter, research on the experience and environments in which techno-social life takes place comes from numerous fields of study. I encourage you to bring *your* field of study, and your everyday understandings and knowledge, to bear on all of this. In your experience, how are digital environments evolving and changing and influencing social connectedness?

To make sure that our view on this is not myopic, though, we turn next to the topic of digital sharing and surveillance. It has become a norm to share information in digital spaces—often as widely as possible—even as companies and governments peek in on and collect and even sell this information. We shall see how these practices affect people's ability to be private, to form relationships, and to have control over their lives so we can better understand and protect ou selves in superconnected, techno-social environments.

#### note

1. Portions excerpted from Chayko (2014)