alone together

Why We Expect
More from Technology
and
Less from Each Other

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Sherry Turkle

always on

Pia Lindman walked the halls of MIT with cyborg dreams. She was not the first. In the summer of 1996, I met with seven young researchers at the MIT Media Lab who carried computers and radio transmitters in their backpacks and keyboards in their pockets. Digital displays were clipped onto eyeglass frames.[1] Thus provisioned, they called themselves "cyborgs" and were always wirelessly connected to the Internet, always online, free from desks and cables. The group was about to release three new 'borgs into the world, three more who would live simultaneously in the physical and virtual. I felt moved by the cyborgs as I had been by Lindman: I saw a bravery, a willingness to sacrifice for a vision of being one with technology. When their burdensome technology cut into their skin, causing lesions and then scars, the cyborgs learned to be indifferent. When their encumbrances caused them to be taken as physically disabled, they learned to be patient and provide explanations.

At MIT, there was much talk about what the cyborgs were trying to accomplish. Faculty supporters stressed how continual connectivity could increase productivity and memory. The cyborgs, it was said, might seem exotic, but this technology should inspire no fear. It was "just a tool" for being better prepared and organized in an increasingly complex information environment. The brain needed help.

From the cyborgs, however, I heard another story. They felt like new selves. One, in his mid-twenties, said he had "become" his device. Shy, with a memory that seemed limited by anxiety, he felt better able to function when he could literally be "looking up" previous encounters with someone as he began a new conversation. "With it," he said, referring to his collection of connectivity devices, "it's not just that I remember people or know more. I feel invincible, sociable, better prepared. I am naked without it. With it, I'm a better person." But with a sense of enhancement came feelings of diffusion. The cyborgs were a new kind of nomad, wandering in and out of the physical real. For the physical real was only one of the many things in their field of vision. Even in the mid-1990s, as they walked around Kendall Square in Cambridge, the cyborgs could not only search the Web but had mobile e-mail, instant messaging, and remote access to desktop computing. The multiplicity of worlds before them set them apart: they could be with you, but they were always somewhere else as well.

Within a decade, what had seemed alien was close to becoming everyone's way of life, as compact smartphones replaced the cyborgs' more elaborate accoutrements. This is the experience of living full-time on the Net, newly free in some ways, newly yoked in others. We are all cyborgs now.

People love their new technologies of connection. They have made parents and children feel more secure and have revolutionized business, education, scholarship, and medicine. It is no accident that corporate America has chosen to name cell phones after candies and ice cream flavors: chocolate, strawberry, vanilla. There is a sweetness to them. They have changed how we date and how we travel. The global reach of connectivity can make the most isolated outpost into a center of learning and economic activity. The word "apps" summons the pleasure of tasks accomplished on mobile devices, some of which, only recently, we would not have dreamed possible (for me, personally, it is an iPhone app that can "listen" to a song, identify it, and cue it up for purchase).

Beyond all of this, connectivity offers new possibilities for experimenting with identity and, particularly in adolescence, the sense of a free space, what Erik Erikson called the *moratorium*. This is a time, relatively consequence free, for doing what adolescents need to do: fall in and out of love with people and ideas. Real life does not always provide this kind of space, but the Internet does.

No handle cranks, no gear turns to move us from one stage of life to another. We don't get all developmental tasks done at age-appropriate times—or even necessarily get them done at all. We move on and use the materials we have to do the best we can at each point in our lives. We rework unresolved issues and

seek out missed experiences. The Internet provides new spaces in which we can do this, no matter how imperfectly, throughout our lives. So, adults as well as adolescents use it to explore identity.

When part of your life is lived in virtual places—it can be Second Life, a computer game, a social networking site—a vexed relationship develops between what is true and what is "true here," true in simulation. In games where we expect to play an avatar, we end up being ourselves in the most revealing ways; on social-networking sites such as Facebook, we think we will be presenting ourselves, but our profile ends up as somebody else—often the fantasy of who we want to be. Distinctions blur. Virtual places offer connection with uncertain claims to commitment. We don't count on cyberfriends to come by if we are ill, to celebrate our children's successes, or help us mourn the death of our parents.[2] People know this, and yet the emotional charge on cyberspace is high. People talk about digital life as the "place for hope," the place where something new will come to them. In the past, one waited for the sound of the post—by carriage, by foot, by truck. Now, when there is a lull, we check our e-mail, texts, and messages.

The story of my own hesitant steps toward a cyborg life is banal, an example of the near universality of what was so recently exotic. I carry a mobile device with me at all times. I held out for years. I don't like attempting to speak to people who are moving in and out of contact as they pass through tunnels, come to dangerous intersections, or otherwise approach dead zones. I worry about them. The clarity and fidelity of sound on my landline telephone seems to me a technical advance over what I can hear on my mobile. And I don't like the feeling of always being on call. But now, with a daughter studying abroad who expects to reach me when she wants to reach me, I am grateful to be tethered to her through the Net. In deference to a generation that sees my phone calls as constraining because they take place in real time and are not suitable for multitasking, I text. Awkwardly.

But even these small things allow me to identify with the cyborgs' claims of an enhanced experience. Tethered to the Internet, the cyborgs felt like more than they could be without it. Like most people, I experience a pint-sized version of such pleasures. I like to look at the list of "favorites" on my iPhone contact list and see everyone I cherish. Each is just a tap away. If someone doesn't have time to talk to me, I can text a greeting, and they will know I am thinking of them, caring about them. Looking over recent text exchanges with my friends and family reliably puts me in a good mood. I keep all the texts my daughter

sent me during her last year of high school. They always warm me: "Forgot my
green sweater, bring please." "Can you pick me up at boathouse, 6?" "Please tell
nurse I'm sick. Class boring. Want to come home." And of course, there are the
photos, so many photos on my phone, more photos than I would ever take with
a camera, always with me.

Yet, even such simple pleasures bring compulsions that take me by surprise.
I check my e-mail first thing in the morning and before going to bed at night. I
have come to learn that informing myself about new professional problems and
demands is not a good way to start or end my day, but my practice unhappily
continues. I admitted my ongoing irritation with myself to a friend, a woman
in her seventies who has meditated on a biblical reading every morning since
she was in her teens. She confessed that it is ever more difficult to begin her spir-
itual exercises before she checks her e-mail; the discipline to defer opening her
inbox is now part of her devotional gesture. And she, too, invites insomnia by
checking her e-mail every night before turning in.

Nurturance was the killer app for robotics. Tending the robots incited our
engagement. There is a parallel for the networked life. Always on and (now) al-
ways with us, we tend the Net, and the Net teaches us to need it.

Online, like MIT's cyborgs, we feel enhanced; there is a parallel with the ro-
botic moment of more. But in both cases, moments of more may leave us with
lives of less. Robotics and connectivity call each other up in tentative symbiosis,
parallel pathways to relational retreat. With sociable robots we are alone but re-
ceive the signals that tell us we are together. Networked, we are together, but so
lessened are our expectations of each other that we can feel utterly alone. And
there is the risk that we come to see others as objects to be accessed—and only
for the parts we find useful, comforting, or amusing.

Once we remove ourselves from the flow of physical, messy, untidy life—and
both robotics and networked life do that—we become less willing to get out
there and take a chance. A song that became popular on YouTube in 2010, "Do
You Want to Date My Avatar?" ends with the lyrics "And if you think I'm not
the one, log off, log off and we'll be done."[3]

Our attraction to even the prospect of sociable robots affords a new view of
our networked life. In Part One we saw that when children grow up with fond
feelings for sociable robots, they are prepared for the "relationships with less"
that the network provides. Now I turn to how the network prepares us for the
"relationships with less" that robots provide. These are the unsettling isolations
of the tethered self. I have said that tethered to the network through our mobile

devices, we approach a new state of the self, itself. For a start, it presumes certain entitlements: It can absent itself from its physical surround—including the people in it. It can experience the physical and virtual in near simultaneity. And it is able to make more time by multitasking, our twenty-first-century alchemy.

THE NEW STATE OF THE SELF: TETHERED AND MARKED ABSENT

These days, being connected depends not on our distance from each other but from available communications technology. Most of the time, we carry that technology with us. In fact, being alone can start to seem like a precondition for being together because it is easier to communicate if you can focus, without interruption, on your screen. In this new regime, a train station (like an airport, a café, or a park) is no longer a communal space but a place of social collection: people come together but do not speak to each other. Each is tethered to a mobile device and to the people and places to which that device serves as a portal. I grew up in Brooklyn where sidewalks had a special look. In every season—even in winter, when snow was scraped away—there were chalk-drawn hopscotch boxes. I speak with a colleague who lives in my old neighborhood. The hopscotch boxes are gone. The kids are out, but they are on their phones.

When people have phone conversations in public spaces, their sense of privacy is sustained by the presumption that those around them will treat them not only as anonymous but as if absent. On a recent train trip from Boston to New York, I sat next to a man talking to his girlfriend about his problems. Here is what I learned by trying not to listen: He's had a recent bout of heavy drinking, and his father is no longer willing to supplement his income. He thinks his girlfriend spends too much money and he dislikes her teenage daughter. Embarrassed, I walked up and down the aisles to find another seat, but the train was full. Resigned, I returned to my seat next to the complainer. There was some comfort in the fact that he was not complaining to me, but I did wish I could disappear. Perhaps there was no need. I was already being treated as though I were not there.

Or perhaps it makes more sense to think of things the other way around: it is those on the phone who mark themselves as absent. Sometimes people signal their departure by putting a phone to their ear, but it often happens in more subtle ways—there may be a glance down at a mobile device during dinner or a meeting. A "place" used to comprise a physical space and the people within it. What is a place if those who are physically present have their attention on the

absent? At a café a block from my home, almost everyone is on a computer or smartphone as they drink their coffee. These people are not my friends, yet somehow I miss their presence.

Our new experience of place is apparent as we travel. Leaving home has always been a way to see one's own culture anew. But what if, tethered, we bring our homes with us? The director of a program that places American students in Spanish universities once complained to me that her students were not "experiencing Spain." They spent their free time on Facebook, chatting with their friends from home. I was sympathetic, thinking of the hours I had spent walking with my teenage daughter on a visit to Paris the summer after she first got her mobile phone. As we sat in a café, waiting for a friend to join us for dinner, Rebecca received a call from a schoolmate who asked her to lunch in Boston, six hours behind us in time. My daughter said simply, "Not possible, but how about Friday?" Her friend didn't even know she was out of town. When I grew up, the idea of the "global village" was an abstraction. My daughter lives something concrete. Emotionally, socially, wherever she goes, she never leaves home. I asked her if she wouldn't rather experience Paris without continual reminders of Boston. (I left aside the matter that I was a reminder of Boston and she, mercifully, did not raise it.) She told me she was happy; she liked being in touch with her friends. She seemed to barely understand my question. I was wistful, worried that Rebecca was missing an experience I cherished in my youth: an undiluted Paris. My Paris came with the thrill of disconnection from everything I knew. My daughter's Paris did not include this displacement.

When Rebecca and I returned home from France, I talked about the trip with a close friend, a psychoanalyst. Our discussion led her to reminisce about her first visit to Paris. She was sixteen, travelling with her parents. But while they went sightseeing with her younger brother, she insisted on staying in her hotel room, writing long letters to her boyfriend. Adolescents have always balanced connection and disconnection; we need to acknowledge the familiarity of our needs and the novelty of our circumstances. The Internet is more than old wine in new bottles; now we can always be elsewhere.

In the month after Rebecca and I returned from Paris, I noted how often I was with colleagues who were elsewhere as well: a board meeting where members rebelled when asked to turn off their mobile devices; a faculty meeting where attendees did their e-mail until it was their turn to speak; a conference at which audience members set up Internet back channels in order to chat about speakers' presentations during the presentations themselves.[4]

Since I teach in a university, I find examples of distracted academics of particular interest. But it is the more mundane examples of attention sharing that change the fabric of daily life. Parents check e-mail as they push strollers. Children and parents text during family dinners. As I watched the annual marathon in Florence, Italy, in November 2009, a runner passed me, texting. Of course, I tried to take her picture on my cell phone. After five years, my level of connectivity had finally caught up with my daughter's. Now when I travel, my access to the Net stays constant. There is security and pleasure in a good hotel on the other side of the world, but it cannot compare to the constancy of online connections.

Research portrays Americans as increasingly insecure, isolated, and lonely.[5] We work more hours than ever before, often at several jobs. Even high school and college students, during seasons of life when time should be most abundant, say that they don't date but "hook up" because "who has the time?" We have moved away, often far away, from the communities of our birth. We struggle to raise children without the support of extended families. Many have left behind the religious and civic associations that once bound us together.[6] To those who have lost a sense of physical connection, connectivity suggests that you make your own page, your own place. When you are there, you are by definition where you belong, among officially friended friends. To those who feel they have no time, connectivity, like robotics, tempts by proposing substitutions through which you can have companionship with convenience. A robot will always be there, amusing and compliant. On the Net, you can always find someone. "I never want to be far from my BlackBerry," a colleague told me. "That is where my games are. That is where my sites are. Without it, I'm too anxious."

Today, our machine dream is to be never alone but always in control. This can't happen when one is face-to-face with a person. But it can be accomplished with a robot or, as we shall see, by slipping through the portals of a digital life.

THE NEW STATE OF THE SELF: FROM LIFE TO THE LIFE MIX

From the very beginning, networked technologies designed to share practical information were taken up as technologies of relationship. So, for example, the Arpanet, grandfather of the Internet, was developed so that scientists could collaborate on research papers, but it soon became a place to gossip, flirt, and talk about one's kids. By the mid-1990s, the Internet throbbed with new social worlds. There were chat rooms and bulletin boards and social environments known as multiuser domains, or MUDs. Soon after came massively multiplayer

online role-playing games such as Ultima 2 and EverQuest, the precursors of game worlds such as World of Warcraft. In all of these, people created avatars— more or less richly rendered virtual selves—and lived out parallel lives. People sat at their computers and moved from windows that featured the spreadsheets and business documents of the real world to those in which they inhabited on- line personae. Although the games most often took the form of quests, medieval and otherwise, the virtual environments were most compelling because they of- fered opportunities for a social life, for performing as the self you wanted to be. As one player on an adventure-style MUD told me in the early 1990s, "I began with an interest in 'hack and slay,' but then I stayed to chat."[7]

In the course of a life, we never "graduate" from working on identity; we sim- ply rework it with the materials at hand. From the start, online social worlds provided new materials. Online, the plain represented themselves as glamorous, the old as young, the young as older. Those of modest means wore elaborate virtual jewelry. In virtual space, the crippled walked without crutches, and the shy improved their chances as seducers. These days, online games and worlds are increasingly elaborate. The most popular "pay-to-play" game, World of War- craft, puts you, along with 11.5 million other players, in the world of Azeroth. There, you control a character, an avatar, whose personality, natural gifts, and acquired skills are under continual development as it takes on a trade, explores the landscape, fights monsters, and goes on quests. In some games, you can play alone—in which case you mostly have artificial intelligences for company, "bots" that play the role of human characters. Or you can band together with other players on the network to conquer new worlds. This can be a highly collabora- tive endeavor, a social life unto itself: you routinely e-mail, talk to, and message the people you game with.

In a different genre, Second Life is a virtual "place" rather than a game. Here, there is no winning, only living. You begin by naming and building an avatar. You work from a menu with a vast array of choices for its looks and clothes. If these are not sufficient, you can design a customized avatar from scratch. Now, pleased with *your* looks, you have the potential, as Second Life puts it, to live a life that will enable you to "love your life."[8] You can, among other things, get an education, launch a business, buy land, build and furnish a home, and, of course, have a social life that may include love, sex, and marriage. You can even earn money—Second Life currency is convertible into dollars.

As all this unfolds, you hang out in virtual bars, restaurants, and cafés. You relax on virtual beaches and have business meetings in virtual conference rooms.

It is not uncommon for people who spend a lot of time on Second Life and role-playing games to say that their online identities make them feel more like themselves than they do in the physical real. This is play, certainly, but it is serious play.[9]

Historically, there is nothing new in "playing at" being other. But in the past, such play was dependent on physical displacement. As a teenager I devoured novels about young men and women sent abroad on a Grand Tour to get over unhappy love affairs. In Europe, they "played at" being unscathed by heartbreak. Now, in Weston, Massachusetts, Pete, forty-six, is trying find a life beyond his disappointing marriage. He has only to turn on his iPhone.

I meet Pete on an unseasonably warm Sunday in late autumn. He attends to his two children, four and six, and to his phone, which gives him access to Second Life.[10] There, Pete has created an avatar, a buff and handsome young man named Rolo. As Rolo, Pete has courted a female avatar named Jade, a slip of a girl, a pixie with short, spiky blonde hair. As Rolo, he "married" Jade in an elaborate Second Life ceremony more than a year before, surrounded by their virtual best friends. Pete has never met the woman behind the avatar Jade and does not wish to. (It is possible, of course, that the human being behind Jade is a man. Pete understands this but says, "I don't want to go there.") Pete describes Jade as intelligent, passionate, and easy to talk to.

On most days, Pete logs onto Second Life before leaving for work. Pete and Jade talk (by typing) and then erotically engage their avatars, something that Second Life software makes possible with special animations.[11] Boundaries between life and game are not easy to maintain. Online, Pete and Jade talk about sex and Second Life gossip, but they also talk about money, the recession, work, and matters of health. Pete is on cholesterol-lowering medication that is only partially successful. Pete says that it is hard to talk to his "real" wife Alison about his anxieties; she gets "too worried that I might die and leave her alone." But he can talk to Jade. Pete says, "Second Life gives me a better relationship than I have in real life. This is where I feel most myself. Jade accepts who I am. My relationship with Jade makes it possible for me to stay in my marriage, with my family." The ironies are apparent: an avatar who has never seen or spoken to him in person and to whom he appears in a body nothing like his own seems, to him, most accepting of his truest self.

Pete enjoys this Sunday in the playground; he is with his children and with Jade. He says, "My children seem content. . . . I feel like I'm with them. . . . I'm here for them but in the background." I glance around the playground. Many

adults are dividing their attention between children and mobile devices. Are they scrolling through e-mails and texts from family, friends, and colleagues? Are they looking at photographs? Are they in parallel worlds with virtual lovers?

When people make the point that we have always found ways to escape from ourselves, that neither the desire nor the possibility is new with the Internet, I always tell them they are right. Pete's online life bears a family resemblance to how some people use more traditional extramarital affairs. It also resembles how people can play at being "other" on business trips and vacations. When Pete pushes a swing with one hand and types notes to Jade with the other, something is familiar: a man finding that a relationship outside his marriage gives him something he wants. But something is unfamiliar: the simultaneity of lives, the interleaving of romance with a shout-out to a six-year-old. Pete says that his online marriage is an essential part of his "life mix." I ask him about this expression. I have never heard it before. Pete explains that the life mix is the mash-up of what you have on- and offline. Now, we ask not of our satisfactions in life but in our life mix. We have moved from multitasking to multi-lifing.

You need mobile communication to get to the notion of the life mix. Until recently, one had to sit in front of a computer screen to enter virtual space. This meant that the passage through the looking glass was deliberate and bounded by the time you could spend in front of a computer. Now, with a mobile device as portal, one moves into the virtual with fluidity and on the go. This makes it easier to use our lives as avatars to manage the tensions of everyday existence. We use social networking to be "ourselves," but our online performances take on lives of their own. Our online selves develop distinct personalities. Sometimes we see them as our "better selves." As we invest in them, we want to take credit for them. Recently—although, admittedly, at MIT I live in the land of the techno-sophisticated—I have been given business cards that include people's real-life names, their Facebook handles, and the name of their avatar on Second Life.

In talking about sociable robots, I described an arc that went from seeing simulation as better than nothing to simply better, as offering companions that could meet one's exact emotional requirements. Something similar is happening online. We may begin by thinking that e-mails, texts, and Facebook messaging are thin gruel but useful if the alternative is sparse communication with the people we care about. Then, we become accustomed to their special pleasures—we can have connection when and where we want or need it, and we can easily make it go away. In only a few more steps, you have people describing life on Facebook as better than anything they have ever known. They use the site to

share their thoughts, their music, and their photos. They expand their reach in a continually growing community of acquaintance. No matter how esoteric their interests, they are surrounded by enthusiasts, potentially drawn from all over the world. No matter how parochial the culture around them, they are cosmopolitan. In this spirit, when Pete talks about Second Life, he extols its international flavor and his "in-world" educational opportunities. He makes it clear that he spends time "in physical life" with friends and family. But he says that Second Life "is my preferred way of being with people."[12]

In addition to the time he spends on Second Life, Pete has an avatar on World of Warcraft, and he is a regular on the social-networking sites Facebook, LinkedIn, and Plaxo. Every day he checks one professional and three personal e-mail accounts. I once described this kind of movement among identities with the metaphor of "cycling through."[13] But now, with mobile technology, cycling through has accelerated into the mash-up of a life mix. Rapid cycling stabilizes into a sense of continual copresence. Even a simple cell phone brings us into the world of continual partial attention.[14]

Not that many years ago, one of my graduate students talked to me about the first time he found himself walking across the MIT campus with a friend who took an incoming call on his mobile phone. My student was irritated, almost incredulous. "He put me on 'pause.' Am I supposed to remember where we were and pick up the conversation after he is done with his call?" At the time, his friend's behavior seemed rude and confusing. Only a few years later, it registers as banal. Mobile technology has made each of us "pauseable." Our face-to-face conversations are routinely interrupted by incoming calls and text messages. In the world of paper mail, it was unacceptable for a colleague to read his or her correspondence during a meeting. In the new etiquette, turning away from those in front of you to answer a mobile phone or respond to a text has become close to the norm. When someone holds a phone, it can be hard to know if you have that person's attention. A parent, partner, or child glances down and is lost to another place, often without realizing that they have taken leave. In restaurants, customers are asked to turn their phones to vibrate. But many don't need sound or vibration to know that something has happened on their phones. "When there is an event on my phone, the screen changes," says a twenty-six-year-old lawyer. "There is a brightening of the screen. Even if my phone is in my purse . . . I see it, I sense it. . . . I always know what is happening on my phone."

People are skilled at creating rituals for demarcating the boundaries between the world of work and the world of family, play, and relaxation. There are special

times (the Sabbath), special meals (the family dinner), special clothes (the "armor" for a day's labor comes off at home, whether it is the businessman's suit or the laborer's overalls), and special places (the dining room, the parlor, the kitchen, and the bedroom). Now demarcations blur as technology accompanies us everywhere, all the time. We are too quick to celebrate the continual presence of a technology that knows no respect for traditional and helpful lines in the sand.[15]

Sal, sixty-two, a widower, describes one erased line as a "Rip van Winkle experience." When his wife became ill five years before, he dropped out of one world. Now, a year after her death, he wakes up in another. Recently, Sal began to entertain at his home again. At his first small dinner party, he tells me, "I invited a woman, about fifty, who works in Washington. In the middle of a conversation about the Middle East, she takes out her BlackBerry. She wasn't speaking on it. I wondered if she was checking her e-mail. I thought she was being rude, so I asked her what she was doing. She said that she was blogging the conversation. She was *blogging* the conversation." Several months after the event, Sal remains incredulous. He thinks of an evening with friends as private, as if surrounded by an invisible wall. His guest, living the life mix, sees her evening as an occasion to appear on a larger virtual stage.

THE NEW STATE OF THE SELF: MULTITASKING AND THE ALCHEMY OF TIME

In the 1980s, the children I interviewed about their lives with technology often did their homework with television and music in the background and a hand-held video game for distraction. Algebra and Super Mario were part of the same package. Today, such recollections sound almost pastoral. A child doing homework is usually—among other things—attending to Facebook, shopping, music, online games, texts, videos, calls, and instant messages. Absent only is e-mail, considered by most people under twenty-five a technology of the past, or perhaps required to apply to college or to submit a job application.

Subtly, over time, multitasking, once seen as something of a blight, was recast as a virtue. And over time, the conversation about its virtues became extravagant, with young people close to lionized for their ability to do many things at once. Experts went so far as to declare multitasking not just a skill but *the* crucial skill for successful work and learning in digital culture. There was even concern that old-fashioned teachers who could only do one thing at a time would hamper student learning.[16] Now we must wonder at how easily we were smitten.

When psychologists study multitasking, they do not find a story of new efficiencies. Rather, multitaskers don't perform as well on any of the tasks they are attempting.[17] But multitasking feels good because the body rewards it with neurochemicals that induce a multitasking "high." The high deceives multitaskers into thinking they are being especially productive. In search of the high, they want to do even more. In the years ahead, there will be a lot to sort out. We fell in love with what technology made easy. Our bodies colluded.

These days, even as some educators try to integrate smartphones into classrooms, others experiment with media fasts to get students down to business. At my university, professors are divided about whether they should meddle at all. Our students, some say, are grown-ups. It is not for us to dictate how they take notes or to get involved if they let their attention wander from class-related materials. But when I stand in back of our Wi-Fi enabled lecture halls, students are on Facebook and YouTube, and they are shopping, mostly for music. I want to engage my students in conversation. I don't think they should use class time for any other purpose. One year, I raised the topic for general discussion and suggested using notebooks (the paper kind) for note taking. Some of my students claimed to be relieved. "Now I won't be tempted by Facebook messages," said one sophomore. Others were annoyed, almost surly. They were not in a position to defend their right to shop and download music in class, so they insisted that they liked taking notes on their computers. I was forcing them to take notes by hand and then type them into computer documents later. While they were complaining about this two-step process, I was secretly thinking what a good learning strategy this might be. I maintained my resolve, but the following year, I bowed to common practice and allowed students to do what they wished. But I notice, along with several of my colleagues, that the students whose laptops are open in class do not do as well as the others.[18]

When media are always there, waiting to be wanted, people lose a sense of choosing to communicate. Those who use BlackBerry smartphones talk about the fascination of watching their lives "scroll by." They watch their lives as though watching a movie. One says, "I glance at my watch to sense the time; I glance at my BlackBerry to get a sense of my life."[19] Adults admit that interrupting their work for e-mail and messages is distracting but say they would never give it up. When I ask teenagers specifically about being interrupted during homework time, for example, by Facebook messages or new texts, many seem not to understand the question. They say things like, "That's just how it is. That's just my life." When the BlackBerry movie of one's life becomes one's life, there

is a problem: the BlackBerry version is the unedited version of one's life. It contains more than one has time to live. Although we can't keep up with it, we feel responsible for it. It is, after all, our life. We strive to be a self that can keep up with its e-mail.

Our networked devices encourage a new notion of time because they promise that one can layer more activities onto it. Because you can text while doing something else, texting does not seem to take time but to give you time. This is more than welcome; it is magical. We have managed to squeeze in that extra little bit, but the fastest living among us encourage us to read books with titles such as *In Praise of Slowness.*[20] And we have found ways of spending more time with friends and family in which we hardly give them any attention at all.

We are overwhelmed across the generations. Teenagers complain that parents don't look up from their phones at dinner and that they bring their phones to school sporting events. Hannah, sixteen, is a solemn, quiet high school junior. She tells me that for years she has tried to get her mother's attention when her mother comes to fetch her after school or after dance lessons. Hannah says, "The car will start; she'll be driving still looking down, looking at her messages, but still no hello." We will hear others tell similar stories.

Parents say they are ashamed of such behavior but quickly get around to explaining, if not justifying, it. They say they are more stressed than ever as they try to keep up with e-mail and messages. They always feel behind. They cannot take a vacation without bringing the office with them; their office is on their cell phone.[21] They complain that their employers require them to be continually online but then admit that their devotion to their communications devices exceeds all professional expectations.

Teenagers, when pressed for time (a homework assignment is due), may try to escape the demands of the always-on culture. Some will use their parents' accounts so that their friends won't know that they are online. Adults hide out as well. On weekends, mobile devices are left at the office or in locked desk drawers. When employers demand connection, people practice evasive maneuvers. They go on adventure vacations and pursue extreme sports. As I write this, it is still possible to take long plane rides with no cell phone or Internet access. But even this is changing. Wi-Fi has made it to the skies.

In a tethered world, too much is possible, yet few can resist measuring success against a metric of what they could accomplish if they were always available. Diane, thirty-six, a curator at a large Midwestern museum, cannot keep up with the pace set by her technology.

I can hardly remember when there was such a thing as a weekend, or when I had a Filofax and I thought about whose name I would add to my address book. My e-mail program lets me click on the name of the person who wrote me and poof, they are in my address book. Now everyone who writes me gets put in my address book; everybody is a potential contact, a buyer, donor, and fund-raiser. What used to be an address book is more like a database.

I suppose I do my job better, but my job is my whole life. Or my whole life is my job. When I move from calendar, to address book, to e-mail, to text messages, I feel like a master of the universe; everything is so efficient. I am a maximizing machine. I am on my BlackBerry until two in the morning. I don't sleep well, but I still can't keep up with what is sent to me.

Now for work, I'm expected to have a Twitter feed and a Facebook presence about the museum. And do a blog on museum happenings. That means me in all these places. I have a voice condition. I keep losing my voice. It's not from talking too much. All I do is type, but it has hit me at my voice. The doctor says it's a nervous thing.

Diane, in the company of programs, feels herself "a master of the universe." Yet, she is only powerful enough to see herself as a "maximizing machine" that responds to what the network throws at her. She and her husband have decided they should take a vacation. She plans to tell her colleagues that she is going to be "off the grid" for two weeks, but Diane keeps putting off her announcement. She doesn't know how it will be taken. The norm in the museum is that it is fine to take time off for vacations but not to go offline during them. So, a vacation usually means working from someplace picturesque. Indeed, advertisements for wireless networks routinely feature a handsome man or beautiful woman sitting on a beach. Tethered, we are not to deny the body and its pleasures but to put our bodies somewhere beautiful while we work. Once, mobile devices needed to be shown in such advertisements. Now, they are often implied. We know that the successful are always connected. On vacation, one vacates a place, not a set of responsibilities. In a world of constant communication, Diane's symptom seems fitting: she has become a machine for communicating, but she has no voice left for herself.

As Diane plans her "offline vacation," she admits that she really wants to go to Paris, "but I would have no excuse not to be online in Paris. Helping to build

houses in the Amazon, well, who would know if they have Wi-Fi? My new non-negotiable for a vacation: I have to be able to at least pretend that there is no reason to bring my computer." But after her vacation in remote Brazil finally takes place, she tells me, "Everybody had their BlackBerries with them. Sitting there in the tent. BlackBerries on. It was as though there was some giant satellite parked in the sky."

Diane says she receives about five hundred e-mails, several hundred texts, and around forty calls a day. She notes that many business messages come in multiples. People send her a text and an e-mail, then place a call and leave a message on her voicemail. "Client anxiety," she explains. "They feel better if they communicate." In her world, Diane is accustomed to receiving a hasty message to which she is expected to give a rapid response. She worries that she does not have the time to take her time on the things that matter. And it is hard to maintain a sense of what matters in the din of constant communication.

The self shaped in a world of rapid response measures success by calls made, e-mails answered, texts replied to, contacts reached. This self is calibrated on the basis of what technology proposes, by what it makes easy. But in the technology-induced pressure for volume and velocity, we confront a paradox. We insist that our world is increasingly complex, yet we have created a communications culture that has decreased the time available for us to sit and think uninterrupted. As we communicate in ways that ask for almost instantaneous responses, we don't allow sufficient space to consider complicated problems.

Trey, a forty-six-year-old lawyer with a large Boston firm, raises this issue explicitly. On e-mail, he says, "I answer questions I can answer right away. And people want me to answer them right away. But it's not only the speed. . . . The questions have changed to ones that I *can* answer right away." Trey describes legal matters that call for time and nuance and says that "people don't have patience for these now. They send an e-mail, and they expect something back fast. They are willing to forgo the nuance; really, the client wants to hear something now, and so I give the answers that can be sent back by return e-mail . . . or maybe answers that will take me a day, max. . . . I feel pressured to think in terms of bright lines." He corrects himself. "It's not the technology that does this, of course, but the technology sets expectations about speed." We are back to a conversation about affordances and vulnerabilities. The technology primes us for speed, and overwhelmed, we are happy to have it help us speed up. Trey reminds me that "we speak in terms of 'shooting off' an e-mail. Nobody 'shoots something off' because they want things to proceed apace."

Trey, like Diane, points out that clients frequently send him a text, an e-mail, and a voicemail. "They are saying, 'Feed me.' They feel they have the right." He sums up his experience of the past decade. Electronic communication has been liberating, but in the end, "it has put me on a speed-up, on a treadmill, but that isn't the same as being productive."

I talk with a group of lawyers who all insist that their work would be impossible without their "cells"—that nearly universal shorthand for the smartphones of today that have pretty much the functionality of desktop computers and more. The lawyers insist that they are more productive and that their mobile devices "liberate" them to work from home and to travel with their families. The women, in particular, stress that the networked life makes it possible for them to keep their jobs and spend time with their children. Yet, they also say that their mobile devices eat away at their time to think. One says, "I don't have enough time alone with my mind." Others say, "I have to struggle to make time to think." "I artificially make time to think." "I block out time to think." These formulations all depend on an "I" imagined as separate from the technology, a self that is able to put the technology aside so that it can function independently of its demands. This formulation contrasts with a growing reality of lives lived in the continuous presence of screens. This reality has us, like the MIT cyborgs, learning to see ourselves as one with our devices. To make more time to think would mean turning off our phones. But this is not a simple proposition since our devices are ever more closely coupled to our sense of our bodies and minds.[22] They provide a social and psychological GPS, a navigation system for tethered selves.

As for Diane, she tries to keep up by communicating during what used to be "downtime"—the time when she might have daydreamed during a cab ride or while waiting in line or walking to work. This may be time that we need (physiologically and emotionally) to maintain our ability to focus.[23] But Diane does not permit it to herself. And, of course, she uses our new kind of time: the time of attention sharing.

Diane shies away from the telephone because its real-time demands make too much of a claim on her attention. But like the face-to-face interactions for which it substitutes, the telephone can deliver in ways that texts and e-mails cannot. All parties are present. If there are questions, they can be answered. People can express mixed feelings. In contrast, e-mail tends to go back and forth without resolution. Misunderstandings are frequent. Feelings get hurt. And the greater the misunderstanding, the greater the number of e-mails, far more than necessary. We come to experience the column of unopened messages in our inboxes as a

burden. Then, we project our feelings and worry that our messages are a burden to others.

We have reason to worry. One of my friends posted on Facebook, "The problem with handling your e-mail backlog is that when you answer mail, people answer back! So for each 10 you handle, you get 5 more! Heading down towards my goal of 300 left tonight, and 100 tomorrow." This is becoming a common sentiment. Yet it is sad to hear ourselves refer to letters from friends as "to be handled" or "gotten rid of," the language we use when talking about garbage. But this is the language in use.

An e-mail or text seems to have been always on its way to the trash. These days, as a continuous stream of texts becomes a way of life, we may say less to each other because we imagine that what we say is almost already a throwaway. Texts, by nature telegraphic, can certainly be emotional, insightful, and sexy. They can lift us up. They can make us feel understood, desired, and supported. But they are not a place to deeply understand a problem or to explain a complicated situation. They are momentum. They fill a moment.

FEARFUL SYMMETRIES

When I speak of a new state of the self, itself, I use the word "itself" with purpose. It captures, although with some hyperbole, my concern that the connected life encourages us to treat those we meet online in something of the same way we treat objects—with dispatch. It happens naturally: when you are besieged by thousands of e-mails, texts, and messages—more than you can respond to—demands become depersonalized. Similarly, when we Tweet or write to hundreds or thousands of Facebook friends as a group, we treat individuals as a unit. Friends become fans. A college junior contemplating the multitudes he can contact on the Net says, "I feel that I am part of a larger thing, the Net, the Web. The world. It becomes a thing to me, a thing I am part of. And the people, too, I stop seeing them as individuals, really. They are part of this larger thing."

With sociable robots, we imagine objects as people. Online, we invent ways of being with people that turn them into something close to objects. The self that treats a person as a thing is vulnerable to seeing itself as one. It is important to remember that when we see robots as "alive enough" for us, we give them a promotion. If when on the net, people feel just "alive enough" to be "maximizing machines" for e-mails and messages, they have been demoted. These are fearful symmetries.

In Part One, we saw new connections with the robotic turn into a desire for communion that is no communion at all. Part Two also traces an arc that ends in broken communion. In online intimacies, we hope for compassion but often get the cruelty of strangers. As I explore the networked life and its effects on intimacy and solitude, on identity and privacy, I will describe the experience of many adults. Certain chapters focus on them almost exclusively. But I return again and again to the world of adolescents. Today's teenagers grew up with sociable robots as playroom toys. And they grew up networked, sometimes receiving a first cell phone as early as eight. Their stories offer a clear view of how technology reshapes identity because identity is at the center of adolescent life. Through their eyes, we see a new sensibility unfolding.

These days, cultural norms are rapidly shifting. We used to equate growing up with the ability to function independently. These days always-on connection leads us to reconsider the virtues of a more collaborative self. All questions about autonomy look different if, on a daily basis, we are together even when we are alone.

The network's effects on today's young people are paradoxical. Networking makes it easier to play with identity (for example, by experimenting with an avatar that is interestingly different from you) but harder to leave the past behind, because the Internet is forever. The network facilitates separation (a cell phone allows children greater freedoms) but also inhibits it (a parent is always on tap). Teenagers turn away from the "real-time" demands of the telephone and disappear into role-playing games they describe as "communities" and worlds." And yet, even as they are committed to a new life in the ether, many exhibit an unexpected nostalgia. They start to resent the devices that force them into performing their profiles; they long for a world in which personal information is not taken from them automatically, just as the cost of doing business. Often it is children who tell their parents to put away the cell phone at dinner. It is the young who begin to speak about problems that, to their eyes, their elders have given up on.

I interview Sanjay, sixteen. We will talk for an hour between two of his class periods. At the beginning of our conversation, he takes his mobile phone out of his pocket and turns it off.[24] At the end of our conversation, he turns the phone back on. He looks at me ruefully, almost embarrassed. He has received over a hundred text messages as we were speaking. Some are from his girlfriend who, he says, "is having a meltdown." Some are from a group of close friends trying to organize a small concert. He feels a lot of pressure to reply and begins to pick

up his books and laptop so he can find a quiet place to set himself to the task. As he says good-bye, he adds, not speaking particularly to me but more to himself as an afterthought to the conversation we have just had, "I can't imagine doing this when I get older." And then, more quietly, "How long do I have to continue doing this?"