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Rethinking Virtual Communities

The world shifted into Internet overdrive soon after the 1993 publication of *The Virtual Community*. In the 1980s, when I began writing about online society, the many-to-many capabilities of the Internet were known to a relatively small subculture of early adopters, technophiles, and researchers. A rich ecology of different affinity groups, including scientists, scholars, and (mostly) programmers, thrived in an online culture that almost else nobody knew about. The total online population numbered in the tens of thousands. Less than a decade later, the Internet has made it possible for hundreds of millions of people to transform civilization's most powerful institutions—commerce, politics, science, scholarship, entertainment, education, health care. Our world has changed profoundly and swiftly in large part because of the phenomenon this book described—the sudden emergence of the Internet as a new communication medium.

The publication of this new edition by The MIT Press affords me the rare opportunity to revisit my views on online social communication. The world has changed, virtual communities have changed, my opinions have changed, and I have changed. More than ever before, we need to ask the right questions today about what kind of people, what kind of societies might emerge from social cyberspaces tomorrow. I hope this additional chapter will help provoke those questions.

Social communication in cyberspace is but a part of the global constellation of changes enabled by the Internet, but it's a part where humans have a chance of influencing our destiny. Before we can take actions that influence our future in more positive directions, however, we need to know how to act, and understand why. I originally wrote this

book to introduce social cyberspace to the world. Now I feel obliged to help people think about what we're going to do about it.

This addendum is partially autobiographical because I moved beyond the boundaries of participant-observation and took on the roles of hands-on instigator, advocate, spokesman, straw man, and media persona. *The Virtual Community* led me into face-to-face meetings with the members of virtual communities in Sydney and Stockholm, London and Kyoto, Helsinki and Amsterdam. Scholars around the world published detailed studies of why I was wrong. I welcome this opportunity to add something of what I've learned in recent years to what I wrote about virtual communities long ago.

The Well changed in the years after I wrote about it. A new owner provoked an abortive revolution and the creation of a virtual community owned by its users. The growth of the Well's population from hundreds to thousands, the effect of this book and a cover article in *Wired*, the Well's role in celebrity hacker Kevin Mitnick's bust—all these events changed our little one-horse virtual community into a notorious cybertropolis.

In 1994 I helped create *HotWired*, the first commercial webzine/community and flagship of the brand-new digital culture. I quit *HotWired* and created my own Internet startup, *Electric Minds*. I've created a dozen virtual communities for pleasure, profit, and civic duty since this book was first published.

Since the publication of the first edition of *The Virtual Community*, critics have publicly challenged the book's assumptions, positions, arguments, and proposals. When you are the first person to write about a subject, new works emerge that are based in part on challenging your own. That's how scholarship is supposed to work, although I didn't have any notion that what I was doing was supposed to resemble scholarship. I just knew that there was something very wrong about the public image of online social life that existed in 1992. I was witnessing heartbreak and love and life-death struggles online. My family and I experienced numerous occasions when people cooperated in the physical world to help one another. The common wisdom of that time, however, was that only socially crippled adolescents would use the Internet to communicate with other people. Perhaps I put a rosier tint on my portrait of online socializing in reaction to the stereotype. Perhaps prospects for life online were brighter then, seven years before the dotcom era. And perhaps I've grown

more critical of ideas I once proposed, out of more prolonged exposure to their shortcomings.

In which ways was I right in 1993, and in which ways was I wrong? More important, what are the main questions raised by these critical challenges?

Is the use of the phrase *virtual community* a perversion of the notion of community? What do we mean by community, anyway? What should we know about the history of technological transformations of community? Is the virtualization of human relationships unhealthy? Are virtual communities simulacra for authentic community, in an age where everything is commodified? Is online social behavior addictive? Most important, are hopes for a revitalization of the democratic public sphere dangerously naive? Will Internet-based publishing and communicating decentralize the distribution of political power and influence, or will many-to-many media be dominated by a few?

In the remainder of this chapter I cover in more detail the material I have sketched thus far. Some of this large territory will have to be covered more quickly than it deserves, and entire continents of social cyberspace, from instant-message-land and the many realms of chat to avatar worlds and graphical MOOs, have been skipped entirely, simply because this is a long updated chapter, not an entire new book. I have expanded the original bibliography to serve as a guide to the extensive scientific literature that has emerged since the publication of the first edition of *The Virtual Community*. For those readers who are engaged in studying social cyberspaces, the references included here will lead you far beyond the scope of this book.

The WELL Grows Up

Ironically, the deaths of Tom Mandel and Kathleen Creighton, two outspoken WELLites who would contest my use of "community" to describe the WELL, precipitated communion rituals among people for whom online and offline communities had fused. "Something about this online thing is realer than we had bargained for" was the unspoken message in our eyes when we gathered to say goodbye.

The "Homesteading . . ." subtitle of the first edition is obsolete and anachronistic today. Tom Mandel's death in 1995, a decade after the

founding of the WELL, marked the end of much of the pioneer culture I described in 1992–93. Like all social groups that persist over time, relationships among the original WELL members shifted, warped, and broke; at the same time, new members continued to enter the group. The founding myths and norms also shifted, warped, and sometimes disappeared in this process.

Tom Mandel was a controversial character on the WELL and in real life. He was brilliant, funny, charming, ruthless, inventive, playful, cruel. He harbored a scary temper and a warm, gentle smile. He and I became friends. We saw each other face to face only a few times a year, but it seemed like we lived together online. We were among the first dozen people you could count on to be logged into the WELL most of the day, every day.

When *New York Times* reporter Katie Hafner looked for a narrative line to try to describe a decade of the WELL for a *Wired* cover story, she focused on "the Mandel incident," a brilliantly orchestrated online/offline brouhaha that Tom instigated when his fiancée, another WELLite, broke off their engagement (Hafner, 1997). The online wreckage was spectacular. More remarkably, Tom made his way back into the community, and remained a central figure in the community's life until the end of his own.

Tom announced his doom with characteristic flamboyance, by starting a discussion topic in the WELL's busiest conference, its virtual town square. The title of the topic was "My Turn." In his first post, he announced that he had been diagnosed with lung cancer. For too few weeks and months after that, the rest of us shared with Tom the terrifying periods of waiting for the results of medical tests. And the test results grew worse and worse. The disease progressed quickly. Friendships were mended, including mine. Feuds were resolved. Some were not resolved. Tom and his fiancée married. Toward the end, a WELLite who was a nurse in real life attended his deathbed.

Tom made his last entries in his online death-diary from a laptop plugged into his bedside telephone until the pain and weakness made typing impossible. He died with Beethoven's "Ode to Joy" playing in his hospital room, and with hundreds of people around the world sitting in front of computer screens with tears in their eyes.

I was asked to speak for Tom at his funeral. It's hard to sympathize with the charge that all online relationships are unreal when you've stood in front of a person's friends and family at their funeral, as I've done twice for WELL deaths (the first was Blair's funeral, described earlier).

Tom's wasn't the first online deathwatch; his title for the discussion was an ironic reference to a prior online death. Another WELLite, in my opinion a sometimes verbally caustic woman, also announced her fatal diagnosis online. Unlike Tom, "KJ" didn't have an extensive support network in real life. A dozen or more of us who had never met her organized shifts to sit with her and read to her when her eyesight failed. Without the WELL, how much lonelier would KJ's final weeks have been?

One of the ironies of KJ's death was that one of the WELLites who got to know her online was Cliff Stoll, author of the best-selling book *The Cuckoo's Egg* (Stoll, 1989). KJ posted that she thought it was a good book, and wondered in her blunt fashion who really wrote it. Cliff replied with good humor that he actually wrote the book himself. Stoll cited that same online exchange in his next book, *Silicon Snake Oil*, in which he more or less dismissed virtual community as a cruelly deceptive imitation of real community (Stoll, 1996). KJ started dying after *Silicon Snake Oil* was on its way to press. And Cliff Stoll was one of the people who spent time with KJ at her deathbed.

Not long after Tom's death, Kathleen Creighton died suddenly. Known to WELLites by her username "Casey," Kathleen transcribed the original interviews I taped for this book, and never hesitated to give me the benefit of her own opinions, always more skeptical than my own, along with the transcript. She provoked me to prove or abandon my assumptions about the meaning of cyberlife.

Casey had some health problems, and she didn't live in a healthy apartment. A number of her friends raised some money, provided a truck and labor, and helped her find a place in the country and move there. She died a few months later. When she died, an interesting thing happened. Casey wasn't aggressively nasty, but she didn't brook foolishness, and she eloquently ridiculed highfalutin talk or naive grandiosity. She claimed that the "community talk" was crap, and that she didn't "have a strong need for affiliation." But she cheerfully sold WELL posters of her own design and manufacture in order to help pay for an operation.

The day the news of Casey's death was announced, people started testifying online. Dozens of people revealed that their first welcoming email came from Casey, and that she had provided free, unpublicized technical support as they learned their way around the WELL. At her funeral, her family was surprised to find Casey's family and face-to-face friends outnumbered by a factor of ten by all these people she had known "through the Internet."

And there was Gabe Catalfo. The night, eight years ago, when Phil Catalfo started a topic in the parenting conference about Gabe's leukemia, and the next morning, when an online support group materialized, was certainly a conversion experience for many of us. Over the years, Phil and others continued that conversation, as other newly diagnosed leukemia patients found the discussion. Gabe went into remission. But then he had a setback. And the setback got worse. Finally, he had a bone marrow transplant. When the disease recurred, it was clear that the next step was death.

Gabe became a luminous spiritual teacher. The theologian Matthew Fox, local and Tibetan Buddhist adepts, his family and friends, and the extended online community watched and listened as he accepted the role of teacher. It can't be described by me. Perhaps by Phil. Tens of thousands of dollars had been contributed to the Catalfo family fund, and three pews were filled by WELLites. The 600-seat church was filled to capacity. Back then, the idea of an online support group seemed both natural and completely novel. Now, it's become an entire emerging industry.

Although Gabe's story was the first such tragedy I had encountered, unfortunately, it was not unique. Although socializing in cyberspace is a shallow experience for many, others find there a place to share their most intimate feelings and seek support from invisible strangers. In 1994, a *New York Times* story by Jon Katz quoted this posting from a Compuserve online community (Katz, 1994):

> My daughter (Jennifer) has cancer. As some of you know, she is 8. In all the world I never conceived of all the sorrow I would feel at learning this, all the horror at watching her suffer so stoically through test after test. There is not a lot of hope, just a lot of medicine. We are preparing ourselves for the worst, which her doctor has hinted is what we should expect. I've decided to journal you everyday, those of you who can bear to read it. Feel free to answer, to offer sympathy, encouragement or whatever else you're feeling. Please feel free to check me if I am too sorry for myself or for her.... I do not know how to tell her grand-

parents, or even our friends, for she is much loved, inside and out of the house. We can start here. She asked me this morning, "Dad, does it get better? It does, doesn't it?" My mouth moved up and down, but nothing came out of it. I could sure use some words.

Is Jennifer's father's experience, the support he asks for and receives, the lives forever changed by all who participated, somehow less authentic because human hearts connected through the use of words and Internets? Did it matter that many of the hearts touched by Gabe Catalfo never met him?

Yes, it is important to question whether human lives are growing more mechanical and component-like. It is *all*-important to question the mechanization of human behavior. It is quite another thing to assume that true human emotions can't be transmitted through media, or that they don't count as much as face to face emotion. For some who are rarely seen, a mediated life is a better life than the one they would have otherwise.

I remember a high school student who sent me email about a school project. I get email from students often, but this message was different. He was asking various people about ethical and moral decisions regarding technology. If we could detect spina bifida and cerebral palsy early in pregnancy, would it be permissible to abort these fetuses? I wrote him that I thought it was a complex issue and that frankly I wasn't sure I knew the best answer.

He wrote back later, saying he had received responses from people in 50 countries. He had patiently sent out email to hundreds of people. He disclosed to those of us who had responded that he had been born with spina bifida and cerebral palsy and was glad he was born. I emailed and asked if we could talk and he replied that wasn't practical, since his mother was about the only person who could understand his speech. So I called his mother, who moved us both to tears. She said that she had a wonderfully bright and funny and warm son for whom the entire world constituted an obstacle. His speech is unintelligible. He pecks out messages on an oversized keyboard with a stick. He has little social life outside the Internet, but has a wide circle of friends in the online chess world and elsewhere. For this young man, there is no other way than cyberspace to socialize.

This young man is an extreme case. And there are many other extreme cases. We usually aren't aware of people like this young man because they stay indoors. They are hidden from public awareness, but they exist.

They are disabled, disfigured, frail, frightened, or shy. Before social cyberspaces, they were alone. Now they are not.

I don't tell this story in order to characterize online socializing as a panacea. I tell it to caution those who judge the experience of others to be inauthentic because they communicate with keyboards and screens. Is it good for our society to encourage more and more of the population to communicate by way of computer screens? I am uncertain of the answer. As we shall see, elevators and rubber tires are as implicated as computer screens in the trend toward alienation and mechanization of human life. I am more certain about this: It is dangerous to mindlessly invalidate the experiences of a person for whom Internet communication is not a luxury but a lifeline.

The times we helped each other, reached through the screens to touch each others' lives, were the times when something deserving of the word "community" manifested among people who spent most of our time sending words to each other across wires. But the years proved that, like communities in the real world, the WELL culture harbored its shadow side.

All online interactions are influenced by the lack of corporeality. In some cases, this works to the benefit of the communication; in other instances, it damages the communication. The absence of our bodies and the conveyance of nuance that accompanies body language and tone of voice, coupled with the ease of access to the attention of many people, also makes social cyberspaces susceptible to certain human foibles. Energy creatures, for example.

The energy creature is an online stereotype of a certain kind of pathological behavior that often infects listservs, newsgroups, BBSs, chatrooms—an articulate person with time to spare, access to the Net, and a need for negative attention. One person with this particular need and talent can stir up the emotions of hundreds or thousands of other online participants. Every response, from friendly and cajoling to flaming, encourages the energy creature to continue. Energy creatures received their name from a *Star Trek* episode where an alien seemed to grow stronger as the crew of the Enterprise shot it with their energy-blasters. As long as there is one remaining person who doesn't know that yelling at the EC will just feed him or her energy, one person can steal the attention of thousands. As such, an EC is a property of a group. For any sufficiently large number of human beings, there exists a potential EC with the power to waste the attention of many people.

There is also the invisibility of positive attention. While people often jump to disagree, dispute, disparage, or mock something they dislike, people don't spend as much time telling each other online how much they appreciate one another's contributions. Online peanut galleries are incubators for kibitzing—online book discussions can include heated arguments among people who haven't read the book yet. Character assassins and passive aggressive organizers of other people's feuds, gossips and snitches, bullies, charlatans, con-artists all make their way online, along with the authentically goodwilled. In the years since I first wrote about the phenomenon, I've seen far more of the dark side than I had witnessed before I wrote *The Virtual Community*.

The WELL was younger in 1992, and so was I. Many things happened to change the phenomenon that took root in 1985 into something very different by 1995: abortive revolutions and splinter colonies, feuds that continue to this day, new subcommunities full of people who neither knew nor cared about what the first WELLites did in 1985, mass media attention, the Internet population explosion.

The WELL's charmed history of absentee owners documented in the first edition of this book came to an end shortly after it was published. In 1994, an entrepreneur by the name of Bruce Katz bought the WELL from its owner, the Point Foundation. At this point, I enter the story as a character. At that time, I was the editor of the unprofitable magazine *Whole Earth Review*, which was on the brink of going under entirely. We were in the middle of creating *The Millennium Whole Earth* Catalog, which we hoped would solve our financial problems. The magazine and catalog publications were both owned by Stewart Brand's Point Foundation.

I approved the sale as a desperation measure to save the paper publications, because Bruce Katz had good intentions and deep pockets, and because the Point Foundation didn't have the resources or intention of growing the WELL before it suffered the fate of the quarterly and catalog. One of the conditions of the sale was that I would sit on the board of the WELL, a privately owned corporation controlled by Bruce Katz. This gave Katz a grace period of good will with the WELL community.

But Katz lacks good listening skills and didn't seem to understand that he needed to communicate with the WELL community himself, in our medium, in a way that showed some basic understanding of our norms. The tempest that followed was all a matter of respect, as tempests in social cyberspaces often are.

Around a hundred volunteer hosts like myself and Tom Mandel had spent years of our lives adding value to the enterprise that Bruce had bought, and presumably meant to profit from. It is an unusual business where your customers also create the value you sell them. We would have been happy to continue doing it, because we were giving it away to each other, and had no problem if the people who owned the hardware and paid for the telecommunications costs of running the server and hired the staff made some profit. But we needed the new owner to pay his respects. He failed to master the online Aikido that could have made the thousands of WELLites contented volunteers, and when he fired the general manager, himself a longtime WELLite, cabals began to form. I had not been consulted about the firing, which made it unproductive to remain on a powerless Board of Directors, so I resigned.

Because the WELL's software made it possible for members to form their own private conferences in parallel with the public discussions open to all members, cabals began to brew. One cabal in particular enlisted the temporary cooperation of a large group of hosts and others, including many people who didn't normally get along. The private conference for the cabal was expanding quickly as the momentum of revolution began to become a force of its own. First, we were shocked out of our own naivete. The WELL was owned by someone. That was enough of a shock. That the owner didn't know how to communicate with us but wanted to grow it to rival AOL threw the old-timers into a panic. The WELL might sink. We needed a lifeboat.

But not everybody was included in the private conference, and that turned the revolution into an online equivalent of a left-wing firing squad (first, you all get in a circle). The private communications and the exclusion of some others created the conditions for the kinds of malicious behavior that can erupt in such circumstances—snitches, flamewars, blood feuds that taint certain cyberspaces for years (sometimes continuing from one virtual community to another).

The conspirators decided to name the lifeboat "The River." I served as one of the "Octopod," a group of eight chosen by online consensus to meet face to face as well as online and draw up a social contract for the debate and approval of the group. We pooled our funds and quickly discovered we had enough money to buy a computer and connect it to the Internet, and enough expertise to install and maintain conferencing

software. The big question was how we would run the thing, and of course, who would run it. The shock of the sale of the WELL convinced us that it was time for virtual community owned and governed by its members. We set up a California Cooperative Corporation, a legal entity that enabled each member to own one nontransferable share and one vote in the election of the directors. The idea is elegant, and it works in practice. However, the River was the first time but not the last that I observed how computer-mediated communication can make democratic decision-making a more onerous process than it has to be.

Democratic decision-making means a great deal of talking and arguing, and town hall meetings in colonial New England probably were susceptible to the same things that plague online decision-making—the small number of cranks and obsessives who can squander the group's time and attention, the many different conversations needed for people of different interests to agree on a compromise, factionalism and interpersonal conflict entangled with policy issues. When you try to do that process online, the naturally abrasive discourse of the public sphere is complicated by the lack of nuance that increases the probability of misunderstanding online. The intense controversy surrounding the River's private planning conference, coupled with all these factors, turned the online constitutional convention and first political campaign into an unpleasant process, punctuated by ugly eruptions. Many people left the River early because they wanted to have good conversations about things, not conversations about how they were going to have conversations. The critics of the notion of virtual community are right to point out that this kind of community is extremely easy to leave.

But the ownership and governance model works, the River survives (http://www.river.org), and the founders are still happy to share their organizational documents with others who are looking for an online governance model. Legislative processes, even those that produce workable results, can be unpleasant to behold. In the case of the River, the new owner neither grew the WELL into a rival of AOL, nor was he responsible for sinking it. Indeed, he spent millions of dollars upgrading the equipment needed to serve a population pushing ten thousand at its peak. The River has managed to survive and turn into a friendly little place for a couple hundred people, but without the shipwreck, the lifeboat wasn't necessary. The WELL sailed on in its own directions.

In 1998, shortly before it went public, the online culture and politics zine Salon.com bought the WELL. Katz converted his investment into shares in a publicly traded Internet company, and the WELLites didn't object too harshly. The whole Katz brouhaha had proved the counter-productivity of barking too loudly at a well-meaning owner, even if he isn't adept at the native lingo. And, ironically, the Community Director for Salon.com in 1999 was Cliff Figallo, former General Manager of the WELL.

For me and for much of the rest of the industrialized world, the smaller events on the WELL were overshadowed by another Internet event—the advent of the Web. From the first time I saw images and links on a pre-Mosaic browser in 1993, I saw the Web as not just a many-to-many multimedia broadcasting medium, but as a social medium. By the time I followed that vision to its conclusion, I had started an Internet company to marry content and community, raised and spent $2 million to launch it, created a cultural success, and watched the entire enterprise fail during the short, strangely unique venture capital drought of early 1997.

In 1996, I needed to promote the strange new idea that people could use the web to communicate as well as surf (e-commerce wasn't even a cloud on the horizon). So I started calling it "the social web."

The Social Web

The first time I saw the Web, I wanted to create communities there. Although I seek to apply standards of objective truth-seeking to my investigations of online social phenomena, I have come to understand that much of my participation in this new medium has been driven by my own personal longings for that participation. Lusting after tools that don't quite exist yet but that are clearly possible has motivated much of the effort that created the Web as we know it today—long before dreams of IPOs made simple avarice the driving force for Internet innovation.

In 1993, before Mosaic made the World Wide Web visible to millions of people with shocking suddenness, a fellow named Dale Daugherty who worked for an outfit called Global Network Navigator (GNN) showed me how you could display words and images and links to other pages. He had a pre-Mosaic browser and intended to publish a kind of dynamic magazine online, a guide or portal to the rest of the Web. His

employer published a hugely successful book in the first years of the Internet's emergence into the public eye, called *The Whole Internet User's Guide* (Krol, 1994). At that time, I was editor of *Whole Earth Review* and Daugherty thought an alliance might be possible. GNN could have beaten Yahoo to market by two years, except there were no venture capitalists willing to invest in Internet ventures in 1993. I wrote about GNN for an early edition of *Wired*—the era of the webzine had arrived! But GNN was acquired by AOL, the graveyard of more than one promising venture, and disappeared from view around the time the Netscape browser detonated the Web's explosive growth.

What if you could have many-to-many conversations, WELL-style, and also include photographs, illustrations, and links? I conceived a passion for a mode of communication that had become technically possible but didn't exist yet—a community of publishers, where the audience is the entertainment, and the flat world of ASCII text in social cyberspace blossoms into a world of color and movement and sound. A new medium was emerging, as different from everything that preceded it, and as portentous, as the emergence of television.

"Internet time"—the furious pace of change in digital culture—compresses the timelines of events. I first encountered the Web in the same year this book was first published. The idea that you could do a magazine on the Web was fringey, the notion that you might make money on it completely ridiculous. People didn't make money off the Internet, even with pictures and links. But if anyone could invent a way to make money on the Web, *Wired* magazine was a promising candidate. In 1993, *Wired* online presence consisted of a folder on AOL. A graduate student at Stanford, Jonathan Steuer, was hired as "Online Tsar," and convinced Wired Ventures that they needed their own Internet presence. In the spring of 1994, Steuer and I, along with Kevin Kelly, met with *Wired* publishers and agreed to launch a commercial webzine. I agreed to be the executive editor.

If *Wired* publisher Louis Rossetto had taken the time for a cup of coffee or a walk around the block with me, it would have been clear to both of us that we would never work together harmoniously. He looked at our new e-zine and saw it as an extension of *Wired* magazine's brand into cyberspace, which it certainly was, and an extension of *Wired* magazine's role as fashion arbiter of the emerging digital culture, which many of us

thought to be the wrong role online among technical sophisticates. I looked at the same enterprise and saw a community of the best of the digital culture online, the best of whose worldwide multimedia jam sessions would be featured in the e-zine. But Rossetto didn't want to provide resources for the community role. It was an electronic extension of letters to the editor, from where he sat. "I don't want to be the bozofilter for the Net," he barked, when I talked about user-generated content.

HotWired, designed and launched by the crew that Rossetto, Steuer, and I organized in the summer of 1994, did include a web-based conferencing community called "Threads," and it did have life to it. But it needed at least one person devoted to managing it. Having invented the online banner ad, *HotWired* was making money by publishing editorial content pages with advertisements on them.

I resigned from *HotWired* shortly after it launched. Within a month, close to half of the original staff left. But I couldn't forget my hankering for a worldwide multimedia jam.

What I had in mind had elements of a magazine (editorial discrimination, creative design, regular, high-quality, "content"), but was much more like a community (many to many, unfiltered, audience-created content). I spent most of 1995 having great fun updating my web page every day. I did all the writing, editing, design, illustrations, html. I talked friends in America, Europe, and Japan into writing for free. In late 1995, I became infected with the notion that I should expand what I was having such fun doing. When I sat down to figure out how to pay my writers and editors, hire a "real" designer, license a webconferencing system, it looked like it would cost tens of thousands per month, and take us three or four months to launch.

Lesson number one was that everything in an Internet startup that depends on cutting-edge technology takes longer and costs more than originally estimated, even when you take lesson number one into account. It took us eight months to launch and cost $2 million.

Deciding to pay people reasonably well (but by no means extravagantly) for editorial content, art and design, technical services, sales and marketing, finance and management, led me to need more money than I had. That's when I made what I now clearly see to be my most fundamental error. I got caught up in the intoxication of venture-capital financing, which was entering a state of mania in late 1995 that has con-

tinued since then, unabated except for a brief period in early 1997 when nobody wanted to invest in the notion of "the social web." I connected with a business partner I didn't know, but who knew how to go about securing financing and putting together a company—my second fundamental error. I failed to listen to my own nagging doubts and made a bad choice in partners.

I take responsibility for making the decisions that led to the business failure of Electric Minds. I made many bad decisions, although not many more than average for startups. The decision to go for venture capital made all the other decisions moot. My new partner introduced me to a fellow from Softbank Ventures, an early investor in Yahoo! that was investing billions in Internet ventures. I told the guy from Softbank that if we could figure out how to combine community and publishing, then the other companies in the Softbank investment portfolio could leverage that knowledge profitably. Electric Minds was supposed to be an experiment.

At that point, any business plan for an Internet business was a conjecture, and thinking about how virtual communities could be part of a profitable business was in the realm of science-fiction. We agreed that the first step was to build an exemplary product. We agreed that it would take at least three years to become profitable.

We were funded in March 1996 and launched in November. In December, *Time* magazine named us one of the ten best web sites of 1996 (*Time*, December 23, 1996). By July 1997 we were out of business. VCs want a return of ten times their initial investment, and they would prefer to get their money in three to five years. When Softbank started weeding out the investments that were less likely to achieve a ten times return on investment, they withdrew their verbal promises of bridge financing for Electric Minds. They even told us to keep operating, and thus accumulating debt, while seeking investment. When they backed out of their investment, they also backed out of their verbal promise to cover our debts. This left us with more debts than assets, so we settled with our creditors and dissolved the business. Entrepreneurs: Get it in writing!

The worst part of it, I realized when it was over, was that I had turned something that was fun into something that wasn't fun. When I had the time to think about where I had gone wrong, it became clear to me that if I had simply added conferencing software and continued doing my amateur editing and design, then grew a virtual community on my own,

I could have built something less fancy but more sustainable in cultural if not in financial terms. Venture capital, I concluded, might be a good way to ramp up a Yahoo or create a market for a kind of technology product that never existed before. But perhaps it isn't a healthy way to grow a social enterprise. Certainly, there is room for virtual community as part of a business strategy. Just as certainly, virtual communities would be meaningless if the only ones available were commercial enterprises.

Ethical issues occurred to me when I entered the business of growing virtual communities. Is building a virtual community for parents, for example, using money provided by a company that sells diapers, a way of turning community into a commodity? Is this a bad thing? Is it really right to call a collection of web pages or smutty chatrooms a "community?" How much commercial ownership are the members of a virtual community willing to accept, in exchange for the technical and social resources necessary for maintaining the community? Is it possible to be in the business of building communities for profit and still write about them?

A provocative twist to the Electric Minds story is that the community that grow up there survived the dissolution of the company that had fostered it. We laid off most of the staff in April, vainly sought bridge financing in May, started shutting down operations and getting ready to clear out of our offices in June. At the last minute, a company called Durand Communications offered to buy the Electric Minds name and logo, editorial database, and the right to make an offer to the community. Most of the tens of thousands of original registrants left the community when the company stopped paying editorial contributors and community facilitators, but hundreds of active participants stayed. When I told them that Durand would keep the community software running on their computer, after we moved out of our old office and unplugged the server, the enthusiasm among the several hundred hardcore "eMinders" was high. Then came my second experience, reminding me of the great River thrash, in the difficulties of trying to create a democracy online.

"Democracy online" refers to something distinctly different from "the impact of online culture on democracy," a larger subject covered later in this chapter. Democracy online refers to the ideal of governing a virtual community through online debates and votes. To those who seek to do this, I recommend that you start by composing a simple social charter

before you go online. You need to specify the qualifications for voting membership, the mechanisms for campaigning and voting, the structure and powers of a governing body, and mechanisms for recalling or impeaching that ruling body. People can modify the template, which is far less contentious than creating one from scratch. Agree upon the compact and hold an election. Then let your elected leadership use their judgment instead of putting every issue to the vote. If you prepare the template for the social contract in advance, and ask your new members to agree to this means of governance, you will find it much smoother than proposing to an existing virtual community that it decide online how to adopt such a governance structure.

Asynchronous online communication spaces like Usenet or the WELL are not effective media for conducting meetings that result in documents that a diverse population of people agrees to. Collaborative document creation is well supported by the many-to-many medium, but consensus decision-making is not: online conversations tend to diverge and branch and digress, rather than converge. A computer conference is better for letting all opinions be heard than in creating something everyone can go along with.

An online chat conducted by Robert's *Rules of Order* might be an effective supplement to asynchronous discussion. Democracy is a cantankerous process. Many voices need to be heard, and many issues threaten to flare into conflict long before they promise to converge on agreement. People who are online to communicate about science fiction books or children with learning disabilities often want to discuss the subject matter, not engage in lengthy meta-discussion about how to have discussions about the subject matter. While the process-junkies grind on about fine points of jurisprudence, the people whose affinity is in the subject matter leak away and find other places to participate online. Activist and online pioneer Jon Lebkowsky has written online about the reasons "online democracy" is difficult to achieve: <http://www.socio.demon.co.uk/magazine/5/5jon.html>.

Virtual communities often go for years without feeling the need to have any kind of governance. Issues of governance only emerge from conflict. Norms that ought to be rules only become matters of serious discussion when they are transgressed. There are now several case histories or at least descriptive documents about the experiences of different

virtual communities with online governance in the face of transgression. Julian Dibbell's book, *My Tiny Life* (Dibbell, 1999) about a "virtual rape" at LambdaMOO, a famous online community, is also about how the citizens of a community decided online about governance, and matters of crime and punishment. Anna du Val Smith's *Problems of Conflict Management in Virtual Communities* (Smith, 1998) chronicles how online jurisprudence and governance grew from attempts to deal with transgression in another famous community: MicroMUSE.

Smith concluded that "cyber communities, like any social system, must include diversity and find some way to integrate it if they are to thrive. Because open cyber communities are likely to be extremely diverse, managing the resultant inevitable conflict is an especially important task." Managing online conflict could be the subject of a book in its own right.

The social web, a notion journalists and investors found radical and futuristic in 1996, has emerged from both the grassroots and the big players in today's highly commercialized web enterprises. America Online continues to use the word "community" to sell their service ("I think AOL is one big community" is the primetime soundbite of the moment), despite their notorious disrespect for the unpaid community leaders whose allegiance to their breast cancer support group or investment club is what really draws them to AOL. GeoCities, a multi–billion dollar enterprise now owned by Yahoo, offers free web site hosting to millions of their "homesteaders," along with primitive, unsupervised, low-quality message boards, and bills itself as a virtual community. Huge Web "portal" sites that harvest the attention of tens of millions of people each day offer free mailing lists, forums, and chatrooms to anyone willing to eyeball their banner advertisements.

You used to need both money and expertise to set up a webconference, chatroom, or listserv. Now online communication tools are public goods, offered as marketing sizzle by web businesses that want us to pay with the coin of our attention. Billions of instant messages, posts to mailing lists, quips in chatrooms are exchanged every day, and new kinds of communities emerge daily. My infant daughter, whose words of alarm at my corporeal behavior while logged on to the WELL open this book, is now a teenager who routinely talks on the telephone, exchanges instant messages with her friends, and monitors a chatroom (all while working on her homework, she claims, apparently truthfully). A huge social experi-

ment is taking place, as people and enterprises take up these tools, are changed by them, and change the way others live, work, and play.

One major difference between what I know now and what I knew when I wrote the first edition of this book is that I've learned that virtual communities won't automatically emerge or grow in a healthy manner simply by adding a forum or chatroom to a web page. The forces that draw people and our attention away from anything as abstract as written discussions in cyberspace are strong, and action must be taken to glue people together. Skilled facilitation, well-thought-out social contracts, social mechanisms, and multimedia material for initiating newcomers in the use of the medium—the "social infrastructure" for success in virtual-community building—has become valuable, now that tools are free.

If people know how to use many-to-many communication, they can amplify their ability to think and communicate, and if the people who use these tools don't understand how to use them, they can create a mess. Indeed, a business niche has emerged for virtual community design, consulting, building, and facilitation services. I'm in that business myself part of the time, and so is Cliff Figallo, former general manager of the WELL. Later in this chapter, when I examine social critiques of virtual community and the notion of community as commodity, Marxian analysis turns out to be one of the useful lenses we can use to try to see where we are going. Being a capitalist, starting a corporation, growing a small business, were also useful lenses for me at the dawn of the age of the commercialized Internet. (Does anyone remember that in the early 1990s it wasn't legal to use the Internet for commercial enterprise?)

Fifteen years ago, the idea that Cliff or I would engage in professional virtual community consulting would have been the cause for argument about "selling out" the noncommercial purity of online discourse. By now, however, the difference between well-maintained virtual communities and hellish juvenile flame-zones is growing clear to millions of people. Knowing how to use the tools of computer-mediated communication is now a specialized skill that is valuable enough for people to pay for it. In the future, if the new media are to be more useful than destructive, this know-how must become a literacy. The skill cannot remain the exclusive property of an elite, but the process of distributing the skill is necessarily a question of education.

In 1997, just as Electric Minds was circling the drain, a book began making the rounds of venture capitalists and entrepreneurs. John Hagel III and Arthur G. Armstrong, who both worked for the worldwide business consultancy, McKinsey & Co., wrote a book whose title signaled the beginning of the virtual community industry: *Net Gain: Expanding Markets through Virtual Communities* (Hagel and Armstrong, 1997). They connected the emergent properties of online communities with the new economics of increasing gains and showed how online enterprises could reap financial rewards by aggregating people in virtual communities organized around specific interests: sports communities, medical communities, travel communities, pet communities. The notion of e-commerce was only beginning to emerge in 1997. Few people had heard of Amazon, and not every Internet IPO was an instant success. But Hagel and Armstrong saw the social nature of marketplaces and predicted that communities of consumers would be able to use the many-to-many powers of the Internet to organize and begin demanding price discounts from vendors. Indeed, such communities are beginning to emerge. Social communication would bring people back to commercial web sites again and again, thus increasing revenues for advertising, and that social communication could furnish the context for economic transactions.

I agree with Hagel and Armstrong's insight that communities of consumers will use the Internet to their advantage, and that e-commerce communities can be profitable ventures. Whether or not the large profits Hagel and Armstrong forecast for such enterprises will be enjoyed by more than a handful of large media companies is yet to be determined. There are other ways for online communities to create commercial value, in marketing, customer support, and R&D. I have little doubt that some kinds of virtual communities will replace or reshape some kinds of present business practices.

I was involved in one of the early demonstrations of how freewheeling virtual community can serve the purposes of a commercial enterprise. In the spring of 1997, IBM wanted to let the new generations of web geeks know that IBM was still an innovator, and not just a historical name from the days of mainframes. The were confident that their chess-playing computer, "Deep Blue II," would defeat world chess grandmaster Gary Kasparov. So they contracted Electric Minds to create a webconference to accompany the match—an online virtual community

of interest to draw together the chess aficionados, artificial intelligence researchers, programmers, and Netheads. We used WELL Engaged web-conferencing software. I hired Cliff Figallo to manage the project.

Figallo trained an international group of chessmasters in the art of online facilitation, and they helped a core of experienced online facilitators learn about the nuances of chess. Fifty thousand people registered to read the conversations, hundreds of people from more than twenty countries posted thousands of comments in scores of discussion topics. There was very little flaming. The level of discourse was high. And IBM made the point it wanted to make to the audience they wanted to reach.

IBM took a leap of faith, because it is difficult and counterproductive to try to control what people say in the context of a public webconference. If things went bad with IBM's web site during the match, as had happened during the 1994 Olympics, the publicity could backfire, as Electric Minds had created a forum where people from all over the world could jeer. Kasparov won and IBM won. People who were passionate about programming and people who were passionate about chess had intelligent conversations on the play by play. But it could have turned out differently. Companies that aren't willing to take that kind of risk are better advised to avoid the use of virtual communities for brand-building.

As Figallo wrote in *Hosting Web Communities* (Figallo, 1998) and Amy Jo Kim wrote in *Community Building on the Web* (Kim, 2000), there are plenty of legitimate reasons for different kinds of commercial enterprises to use virtual communities.

Figallo wrote about smaller informal affinity groups, nonprofit organizations, and businesses. In regard to businesses, he wrote, among other things:

> For a business intending to serve the needs of its customers, the Web can replace expensive 800-number help lines and paper manuals with interactive services and easily updated online information. This is a practice being adopted by more businesses as they discover how large a percentage of their customers have access to the Web. The investment in hosting such support communities can save money and please customers at the same time. A corporate site doesn't have to be based around support; it can host community activities relevant to its products and services as a public relation gesture and still be able to justify the expense. (Figallo, 1998, p. 363)

He's right. Webconferences and instant messages can augment or even replace telephone support for products. I can see the social critics chewing

on this example. Is one of the founders of the WELL, who lived for twelve years on a self-sustaining commune and built irrigation systems in the Mayan highlands, actually saying community is now a business tool, a kind of sociable helpdesk for businesses to help their customers understand evermore complicated products? One criticism of this approach to virtual community as business practice is that this activity turns community into a commodity. Isn't there another way of looking at it? By building webs of ongoing conversation online, customer support communities can make relations between businesses and customers more humane and sociable.

Linux, the "open source" operating system that is challenging Microsoft's dominant Windows, is a collaborative enterprise that wouldn't exist without virtual communities. The source code for this valuable software product is free, and anybody who can improve it is free to do so, and to contribute their improvements to the entire community. Listservs, IRC Channels, the notorious Linux geek webconferencing community Slashdot <http://www.slashdot.org> enable independent operators to share code. Instead of owning the product the way Microsoft owns Windows, individual entrepreneurs and billion-dollar companies like Red Hat and VA Linux make their money by supporting and building tools for a product that belongs to everyone. Is this capitalism as we've known it? People are giving away valuable intellectual property, and making money at it. As business transforms the nature of virtual communities, it's worth paying attention to the way virtual communities are changing business.

Commercial communities are still evolving. There are branding communities, like IBM's experiment. There are communities of interest like Women.com, PlanetRx, or Petopia that make their money on e-commerce. There are purely social communities like TalkCity chatrooms that make their money on advertising. My gut feeling is that only a few large enterprises will profit purely by providing social cyberspaces. Only a few daring large companies will risk their brand by building online communities. But other enterprises that don't exist yet will find virtual communities to be rich webs of value for their own employees, customers, suppliers, value-added resellers. Future definitions of competition, customer, product, and service might well warp because of new ways for people to communicate with each other. Future best-selling books might contain chips that connect readers into virtual communities of interest,

for example. The most significant impacts of virtual community on commercial enterprises are bound to be internal. Enterprises that have been undergoing profound internal transformations via intranets over the past five years will find that over the next five years, internal online knowledge communities will amplify the power of their most important assets—the intellectual capital and goodwill of their employees.

In addition to Figallo's and Kim's books, Jenny Preece's book *Online Communities: Supporting Sociability and Designing Usability* lays down the foundation for the emerging field of virtual community design (Preece, 2000). Virtual communities are a business, and might grow into an industry, whether anyone likes that or not. Virtual communities might influence changes in traditional business processes and become an integral part of creating and selling goods and services. But it doesn't look likely that "commercialization" is going to make noncommercial online culture disappear. It seems clear already that virtual communities will continue to emerge in a variety of media for a range of reasons, whether or not commercial virtual communities grow into a viable industry.

The business impact of virtual community is important, but it's certainly not the only or most important way socializing in cyberspace is changing us as individuals, communities, and societies. We know now that telephones and televisions changed the way people think and live. How will aspects of online culture change the world?

Rethinking Virtual Community

After more than a decade of discussing and debating the social impact of virtual communities, I have come to believe that this discussion only makes sense in a larger context. Questions about the social impact of digital media must be part of a broader debate that encompasses many communication tools and more than the past five years of history. Communication technologies, from alphabets to Internets, have been changing the nature of communities for nearly ten thousand years, although we didn't know anything about the way communication tools influence minds and communities until recently. Now that the social impact of Internet communication is sinking in, a key question is how to use what we know—and learn what we need to know—in order to influence events in our favor.

Technology doesn't have to dictate the way our social relations change, but we can only influence change if we understand how people use technologies. Although moderns are so thoroughly indoctrinated in the belief in "progress"—that science and technology will always continue to make tomorrow different and better than today—we also have the warning of Faust that certain kinds of knowledge and power come with a price for what we hold to be most uniquely human.

Plato warned in the allegorical tale of Thoth in *Phaedrus* that recording knowledge in books would destroy the oral tradition of knowledge and pedagogy (*Phaedrus* 275 a–b, p. 184). People would lose the skill of remembering, Plato's spokesman stated, and education would cease to be a living dialogue, where students and teachers discuss and argue the meaning of knowledge, but would become a solitary and lifeless decoding of facts from mute objects. He was probably right. Human civilization undoubtedly lost something as well as gained something when alphabetic writing, books, and libraries supplanted bards and peripatetic scholarship. Walter Ong in *Orality and Literacy: The Technologizing of the Word* (Ong, 1982), Harold Innis in *The Bias of Communication* (Innis, 1951), and more recently and more popularly Marshall McLuhan in *Understanding Media* (McLuhan, 1964) have amplified Plato's theme that our ways of knowing the world change when our modes of transferring knowledge change.

Elizabeth L. Eisenstein, historian of the impact of the printing press, noted that "getting the news" was a community event in pre-Gutenberg Europe. People in towns and villages would gather to hear the latest news from travelers, then linger in the town square and discuss it as a group (Eisenstein, 1983). When printed broadsides became economical, people retreated to an inn or their home to do their reading. Thus, the beginnings of the mass medium now known as the newspaper actually helped drain people's attention away from a certain kind of local community. At the same time printing was dissolving certain close social ties, it made possible larger, weaker ties, based on ideas, rather than kin, clan, or tribe. Not long after, and in large part because of the recent invention of printing, people all over Europe began to identify with other people who were not geographically adjacent. Luther's ideas about reformation of the Church spread at unprecedented speed. (This is a good place to note that care must be taken to avoid technological determinism—the

printing press didn't "cause" the Reformation, but it was certainly a central enabling force for the spread of Luther's words.)

At the same time, the new medium contributed to and detracted from community—the way people used print for news distanced them in one way from other people in traditional local communities, and at the same time enabled them to bridge a distance that had previously separated people. People were willing to suffer martyrdom or wage war in alliance with strangers who shared religious values, but didn't live in the same territory or even speak the same language. That separation from traditional form of community and the invention of a new, more abstract—I'm tempted to call it "virtual"—kind of relationships among people was made possible by the printing press.

Important critical questions have been asked about the idea of virtual community and the influence of virtual communications on human relationships. We must all address these questions if we aspire to steer the course of the technology rather than passively experiencing the changes the technology triggers. If there is something disturbing about finding community through a computer screen (and who can deny that the image of disembodied geeks who move only our fingers while staring at a tube is disturbing?), we should also consider whether it is disturbing for hundreds of millions of people to drive for hours every day in our single-passenger automobiles to cities of inhuman scale, where we spend our days in front of screens inside cubicles within skyscrapers full of people who don't know each other. Yes, we should focus on the pitfalls of spending our days in front of screens, but we should not lose sight of those cubicles, skyscrapers, cities, and automobiles when we seek the sources of our alienation.

The rubber tire and the elevator both played their part in the construction of a technology-centric community. And they are both second-generation fruits of industrialized capitalism. Virtual community sits atop a hierarchy of abstractions—language, technology, computing, networking, many-to-many discussion. Virtual community is also built upon a succession of technologies and ways of life we chose to use and live in and be shaped by, because they gave many people freedom and power. Now, the biggest challenge to our freedom is our need to know how to wield the powers of new communication media. New tools exist. Who will use them, and how will they use them? Those who already

have power and wealth to defend also have the knowledge of how to use media to influence and persuade others.

Technologies and literacies that help individuals and groups too dictate the conditions under which other people live are profoundly political instruments, although this seems to go against the grain of the common wisdom. Certain tools themselves are political by their nature. In order to frame critiques of the notion of virtual community, it helps to examine the ways in which the rapidly evolving communication media constitutes a political environment—and look especially closely at the ways we choose not to examine that environment.

Langdon Winner stated it this way:

> A crucial turning point comes when one is able to acknowledge that modern technics, much more than politics as conventionally understood, now legislates the conditions of human existence. New technologies are institutionalized structures within an existing constitution that gives shape to a new polity, the technopolis in which we do increasingly live. For the most part, this constitution still evolves with little public scrutiny or debate. Shielded by the conviction that technology is neutral and tool-like, a whole new order is built—piecemeal, step by step, with the parts and pieces linked together in novel ways, without the slightest public awareness or opportunity to dispute the character of the changes underway. It is somnambulism (rather than determinism) that characterizes technological politics—on the left, right, and center equally. (Winner, 1977)

Winner claims that technology, and the way it shapes our lives, is not an autonomous force. Humans have the power to influence the direction technologies take. I agree with Winner that our primary problem now is that we don't perceive that power. In that regard, we are indeed sleepwalkers. What do we need to know?

The first step is to read the critics and look at where they are pointing. A complete literature review requires more space than this chapter affords. However, the following quick review of the strongest critiques reveals a broad spectrum of criticism, from a variety of disciplines, including political polemics, social psychology experiments, and sociological arguments.

To me, the most penetrating technology critic in the largest sense today is Langdon Winner. In another article (Winner, 1996), Winner questions the notion that virtual communities will create a culture of participatory democracy. He convinced me that the notion of authentic community and civic participation through online discussion is worth close and skeptical examination. However, I would disagree that such media can

never play such a role, on the same grounds that Chou En Lai refused to analyze the impact of the French Revolution: "It's too early to tell."

Another critic, Steven Jones (1995) bases his arguments on Effrat's notions of (1) community as solidarity institutions; (2) community as primary interaction; and (3) community as institutionally distinct groups. Jones suggests that the third of these, community as institutionally distinct groups, makes the most sense in the context of CMC. Jones argues that there is a need to conceptualize community as a complex of social relationships, which has not been sufficiently explored. He also argues that CMC is socially produced space that decenters place, and thus challenges the traditional framework as community being based on proximate geographic space. Jones states that "communities formed by CMC have been called 'virtual communities' and defined as incontrovertibly social spaces in which people still meet face-to-face, but under new definitions of both 'meet' and 'face'" (Jones, 1995).

Jones discusses the social science literature related to pseudocommunity and the decentering of place. Jones uses James Beniger's definition of pseudocommunity, a "reversal of a centuries old trend from organic community based on personal relationships, to impersonal associations integrated by mass means" (Beniger, 1987).

Peter Ludlow (1996) examines the social change brought about by the introduction of computer technology. He states that "with that change has come a sense of alienation and loss of community. Increasingly, though, it becomes possible to recreate that lost community in cyberspace, by forming communities of interest that are not bound by the accidents of geography. Ludlow asks whether they are really communities and raises the issue of whether you can call someone a "neighbor" if you can't see her face or hear her voice. He questions whether we might be abandoning our geographic communities in a sort of "urban flight" if we give our allegiances to virtual communities and also asks to what extent should other communities, and the legal system itself, acknowledge and respect virtual communities.

Clifford Stoll (1995) asserts that claims about the Internet as a community are false and that the Internet can only provide the illusion of community. Stoll says: "Computer networks isolate us from one another, rather than bringing us together."

Parks and Floyd (1996) indicate that other analysts have also questioned claims about the Internet as a community and have similarly stated that "only the illusion of community can be created by Cyberspace."

Calhoun (1991) argues that the modern condition is one of "indirect social relationships" in which connectivity with others is more imagined, or parasocial, than "real." The media's ability to broaden the range of our experiences creates the illusion of greater contact or membership in large-scale social organizations. Rather than creating "communities," however, were are merely developing "categorical identities" or "imagined communities" that are nothing more than the "feeling" of belonging to some group. He argues that a true "community" requires direct relationships among its members:

> I want to argue that there is a great deal of difference between social groups formed out of direct relationships among their members, although often sharing an imaginatively constructed cultural identity, and social categories defined by common cultural or other external attributes of their members and not necessarily linked by any dense, multiplex, or systematic web of interpersonal relationships. (p. 107)

McClellan (1994,) claims that the character of virtual communities can be as provincial as small-town communities. He notes that the WELL has been criticized as too "New Agey" and "little more than a middle-class residents association in cyberspace" (p. 10). McClellan criticizes cyberspace communities as pseudocommunities that have only the appearance of true social bonding. He states:

> Rather than providing a replacement for the crumbling public realm, virtual communities are actually contributing to its decline. They're another thing keeping people indoors and off the streets. Just as TV produces couch potatoes, so on-line culture creates mouse potatoes, people who hide from real life and spend their whole life goofing off in cyberspace. (p. 10)

In *The Future Does Not Compute: Transcending the Machines in Our Midst* (Talbott, 1995), Steve Talbott asks serious questions about how the Internet is affecting our culture and if, in fact, we are surrendering ourselves to it and constructing mechanized communities within its web, instead of a more humane world.

Spears and Lea (1994) claim that the anonymity inherent in CMC can be as oppressive in the hands of the powerful as it is liberating in the hands of the shy and introverted. Underscoring the fact that, in many CMC environments, existing social hierarchies supersede the aspatial

characteristics of CMC, Spears and Lea explain that CMC should not be viewed as an alternative reality where "the individual can escape from the strictures of ordinary identity and interaction" (p. 449). Instead, they argue that "identity and interaction in CMC will often be grounded in the realities of identities and relations beyond CMC, which pervade the rest of our social lives."

Kiesler et al. (1984) identify four features that distinguish CMC from conventional forms of communication: 1) an absence of regulating feedback, 2) incomplete or limited expressions of emotion, 3) a lack of social status cues, and 4) social anonymity. In a subsequent paper, Kiesler (1986) elaborates on the impact anonymity can have on communication:

> When communication lacks dynamic personal information, people focus their attention on the message rather than on each other. Communicators feel a greater sense of anonymity and detect less individuality in others than they do talking on the phone or face-to-face. They feel less empathy, less guilt, less concern over how they compare with others, and are less influenced by norms. (p. 48)

A guiding premise of CMC research since its inception is that CMC lacks nonverbal communication cues leaving the medium a hostile environment for communicators. Kiesler, Zubrow, and Moses (1985) found users of computer-mediated communication to "flame" users and exhibit other nonsupportive behavior.

Critics of both the armchair and experimental varieties have attacked the very use of the term *virtual community*, and have argued that the term debases real community, that online relationships degrade geographic community, that people are less humane to each other in cyberspace, that online discussion disempowers citizens who would otherwise be engaged in authentic civic involvement.

I suggest that we would most productively approach these critiques by maintaining the goal of raising our level of awareness about three levels of social impact of new media. Virtual communities affect the *minds* of individuals, the *interpersonal relationships* between people, and the *social institutions* that emerge from human relationships:

· Critiques at the *individual* level question whether the cognitive and emotional changes afforded by online socializing are healthy.

· Critiques on the *interpersonal* level look at the nature of community, offline and online, and question whether the online variety affects the offline kind in a healthy way.

· Critiques on the *social* level examine whether the kind of society that is emerging from the digital zeitgeist is humane and sustainable and, most important, about whether online communication strengthens or weakens democracy and civil society.

Minds Online

What kind of person do I become when I spend hours a day communicating through the mediation of virtual communities? Despite the obvious importance of this question, relatively little social science research has been directed at the cognitive and emotional effects of online communication. Probably the longest-term observations have been those of MIT professor Sherry Turkle. Her book, *Life On The Screen: Identity in the Age of the Internet* (Turkle, 1995), based on two decades of participant-observation, remains the fundamental work in the field.

Turkle asserts that the personal computer itself is an "object-to-think-with" for understanding the changes computers are inducing in our minds. "We come to see ourselves differently as we catch sight of our images in the mirror of the machine," Turkle writes.

> The development of windows for computer interfaces was a technical innovation motivated by the desire to get people working more efficiently by cycling through different applications. But in the daily practice of many computer users, windows have become a powerful metaphor for thinking about the self as a multiple distributed system."
>
> As human beings become increasingly intertwined with the technology and with each other via the technology, old distinctions about what is specifically human and specifically technological become more complex. Are we living life on the screen or in the screen? Our new technologically enmeshed relationships oblige us to ask to what extent we ourselves have become cyborgs, transgressive mixtures of biology, technology, and code. The traditional distance between people and machines has become harder to maintain.... The computer is an evocative object that causes old boundaries to be renegotiated.

Exactly how, and on what terms, are we renegotiating the boundaries between our selves and our technologized environment? What kind of multiple distributed system do I become when I live part of the day as a teenage girl in a chatroom, part of the day as a serious professional in a webconference, part of the day slaying enemies as Zaxxon, the steel-eyed assassin of an online gaming tribe? Turkle doesn't pretend to map the territory—indeed, she was the first to begin insisting that a vast psychic

territory exists in cyberspace, waiting to be explored systematically by more than a few pioneer researchers. Although the question might sound esoteric, the answers it might provoke are as important as our humanity itself. To the degree that virtual communities support ways for humans to become more comfortable thinking of ourselves as components of a machine, they contribute to a large-scale change in what we regard humans to be. Changing our definition of human is something we probably all agree should be done with a degree of caution or, at least, knowledge.

One social critic, William Irwin Thompson, in *The American Replacement of Nature: The Everyday Acts and Outrageous Evolution of Economic Life* (Thompson, 1992), accused me and *Whole Earth Catalog* and WELL creator Stewart Brand by name of being agents of an ancient Zoroastrian demon of mindless mechanism. I am convinced that I am not the agent of any kind of demon, but seeing the charge in print startled me into thinking about the shadow side of our empowering devices —and reminded me to examine my enthusiasms more closely.

Almost half a century ago, Lewis Mumford, in *The Myth of the Machine* (Mumford, 1966), proposed that the most powerful and dehumanizing invention was not a visible machine but a social machine in which humans are treated as components in a massive hierarchical system for building pyramids and skyscrapers, empires, and civilizations. Jacques Ellul went further, and claimed the extreme deterministic position in the philosophy of technology by asserting that humans no longer guide or even influence technology. Ellul's powerful and depressing book *The Technological Society* (Ellul, 1964) presents argument after argument to demonstrate that "la technique"—the mechanical and relentless evolution of ever-more efficient ways to harness energies and accomplish tasks—is beyond even enlightened human influence. When I read today's cybercritics, with their sometimes pointed but often shallow critiques of digital culture, I'm sorry Mumford and Ellul don't seem to be read any more.

Whether or not you agree with their conclusions, these two technology critics looked into the future at the very beginning of the computer and communications revolution and saw developments that were deeply rooted in millennia of human history. We are changing what it means to be human, we have been doing it for a long time, and we have recently invented ways to accelerate the whole process.

More recently, in *Escape Velocity: Cyberculture at the End of the Century* (Dery, 1996), Mark Dery has examined the ways in which our psyches and societies are preparing us for the transition to the posthuman or transhuman age. There are those, the "extropians" and "transhumanists" who actively seek to jack in to the Net through neural implants. These extreme technophiles ask why we should put up with the messiness, mortality, limitations in intelligence and physical power that accompany the human body as it evolved biologically. Isn't it foolish, they propose, to refuse to research technologies of immortality when eternal life might be within the grasp of modern science? And there are those like Dery and others who warn that transhumanism might be leading us away from humanity as we know it, and into something Ellul might have predicted—a world in which we become fine-tuned down to our DNA as components in ever-consuming, ever-expanding, capitalist machinery, dominated and directed by an elite.

I'd put myself into the "wait a minute—do we really know what we are getting into?" camp. I want to ask technophiles whether we have learned anything from the drama of nuclear physicists in the 1940s. Have we gained sufficient collective wisdom to create technologies of immense power before we understand their consequences? To the most radical technology critics (I reject the pejorative term Luddite), I suggest that if you want to purify humanity by removing all technosocial systems that reduce us to components in larger machines, we'll probably have to do away with much of civilization from organized agriculture onward.

Certainly, mindless acceptance of tools and toys that tune our lives and sensibilities more and more acutely to the needs of machinery is dangerous. But extracting the humane powers from the diabolical forces enabled by technology is not a simple task. It might not even be possible. I see no alternative but to make the effort to find out.

Two other critiques of the individual impact of cybersociety are worth mentioning. First, there is the question of whether people who spend time online are happier or more depressed than those who don't, and then there's the question of addiction—is there a danger of abuse of social cyberspaces? These two critiques are only beginning, and are not the only kinds of questions to be asked about the cognitive and emotional impact of socializing in cyberspace. But they are the most sensational claims, and are certainly serious, even if the early research has

been inadequate and misinterpreted. In discussing the social science of the Internet, the issue of media hype or media scare is always important to address from the beginning

In 1999, a headline in the *New York Times* proclaimed "Internet, Sad, Lonely Place, Researchers Find" (Harmon, 1998). The report cited in the Times, published in the *American Psychologist*, was titled "Internet paradox: A social technology that reduces social involvement and psychological well-being?" (Kraut, Patterson, Lundmark, Kiesler, Mukophadhyay, and Scherlis, 1998).

The researchers found 169 people who did not use computers or the Internet (not exactly a random sample, since the sample excludes all the people who were motivated to get online—maybe it's depressing to go online if you didn't really want to), lent them computers, furnished an Internet connection, and tested them for social-psychological satisfaction at the beginning of the study, then once again, two years later.

Humans are complicated creatures, and testing people regarding their mood once every two years isn't exactly a fine level of analysis. Such data are the beginning of a process of search and research. They certainly should not be mistaken for the end of the inquiry.

In its discussion of the "social use of the Internet," the study lumped email, listservs, newsgroups, BBSs, MUDs, chat, and conferencing into one category. Ignoring the difference between a hot singles chatroom, a listserv for immunologists, a webring of college students, and a message board for Alzheimer's caregivers doesn't make for strong inferences about people's behavior online. But this question of differentiating useful from wasteful social cyberspaces raises an important point. If Internet neophytes don't know what they are doing and aren't lucky their first few times out, it's much easier to find social interaction that is inane, obscene, or irate than it is to find a caring group of people who establish strong ties through online interaction. There are stupid and ugly online interactions and informative and compassionate ones, and like much of contemporary life online or off, the quality of your experience is influenced by which kind you find.

People who communicate via computer networks definitely need to learn about the dangers of mistaking messages on computer screens for fully authentic human relationships. People who suffer from pathologies of cognition or mood indeed can use communication media in pathological

ways. Children and others can be preyed upon. Understanding what online conversation is good for and what its limitations are, and knowing where and how to look for healthy online social groups, seems to be an obvious prerequisite to a rewarding experience with the medium. And those people whose use of the Internet is part of a pattern of obsessive behavior such as compulsive gambling or consumption of pornography need help breaking their pathological patterns. This raises another recent claim regarding harmful effects of online social communication—the matter of "Internet addiction."

Approximately 11 million people around the world are Internet addicts, according to a paper presented by Doctor David Greenfield at the 1999 meeting of the American Psychological Association and reported by the Associated Press. Greenfield also happens to run a clinic <http://www.virtual-addiction.com/> for treating "Internet addiction."

The survey Greenfield cites in support of his claims was conducted by publishing the questionnaire on the ABC News web site last year <http://abcnews.go.com/sections/tech/DailyNews/netaddiction990823.html>. The survey consists of ten questions, such as whether respondents had used the Internet to escape from their problems, tried unsuccessfully to cut back on Internet use, or found themselves preoccupied with the Internet when they were no longer at the computer. Of the 17,251 people who voluntarily responded to the survey, 990 answered "yes" to five or more questions. That's approximately 5.7%. With an estimated 200 million Internet users, this finding was extrapolated to give a figure of 11 and a half million possible Internet addicts.

Is it really possible that 11.4 million people use the Internet in ways that damage their lives? Bold claims require strong evidence. It doesn't take an expert in research methodology to doubt the validity of a "five 'yes' answers out of ten" technique, applied to a self-selected population, with no control group, and no attempt to get a sample that represents the Internet-using population. In fact, a little digging reveals that the "disorder" was first proposed as a parody of the trend toward treating compulsive behaviors as addictions.

"Internet Addiction Disorder" was first proposed as a spoof in March 1995. Although nobody disputes that some individuals spend too much time gambling, downloading pornography, or chatting with fourteen-year-old boys posing as eighteen-year-old girls, the notion of a wide-

spread outbreak of a new mental disorder has been floated annually ever since then. The experts quoted by the media almost always want to add "Internet Addiction Disorder" to the Diagnostic and Statistical Manual of Mental Disorders (DSM), the authoritative text on what mental disorders are diagnosable (and the guide to which treatments qualify for insurance compensation).

The whole hoo-ha started when a psychiatrist, Ivan Goldberg, sent out a message in 1995 claiming to have established the existence of a new disorder that should be added to the DSM. Borrowing language used to describe compulsive gambling as an addiction, Dr. Goldberg listed a set of symptoms <http://web.urz.uniheidelberg.de/Netzdienste/anleitung/wwwtips/8/addict.html>. When he started receiving email from people who claimed to be suffering from the disorder, Goldberg started a tongue-in-cheek online support group for Internet addicts. Although he does believe that some yet-undiscovered percentage of the online population suffer from what he now calls "pathological Internet use disorder," Goldberg told a writer for the *New Yorker* in 1997 that "To medicalize every behavior by putting it into psychiatric nomenclature is ridiculous. If you expand the concept of addiction to include everything people can overdo, then you must talk about people being addicted to books, addicted to jogging, addicted to other people" <http://www.psycom.net/iasg.html>.

Although Goldberg's original article was a hoax, Dr. Kimberly Young, an assistant professor of psychology at the University of Pittsburgh at Bradford, announced the opening of her Center for On-Line Addiction <http://www.netaddiction.com>. In 1997, Dr. Young urged the American Psychiatric Association to give official recognition to the disorder. Dr. Young's paper, "Internet Addiction Disorder: The Emergence of a New Clinical Disorder" <http://www.pitt.edu/~ksy/apa.html>, was based on the responses to a seven-item questionnaire she sent to 496 people who responded to online and offline advertisements for "avid Internet users." She concluded that 396 of the respondents were "dependent Internet users."

The first questions to ask about any scientific experiment, especially those conducted on human subjects, and especially those that are presented to promote a certain policy, are methodological questions: Does the sample represent the population it is supposed to describe? How are

the subjects selected? Are the questions tested and verified? Are there control subjects? Are any relationships specifically implied by the data necessarily causal relationships?

Doctor Joseph B. Walther, associate professor of communication and information technology at Rensselaer Polytechnic Institute <http://www.rpi.edu/~walthj/>, objected to the methodology of the Greenfield study: "The checklist in the reported research includes items that have been shown to correlate statistically with greater Internet usage (although one could indicate 'yes' to five items but not use the Net very much), but have not been shown to predict any kind of dysfunction."

Doctor Walther also objected to "the fallacy of using analogous diagnostic criteria as a substitute for etiological (causative) criteria. That is, as these researchers draw from substance addiction or gambling addiction, they are focusing on tangentially-related aspects of some syndromes that have *nothing* to do with communicating with people or gathering information. No theory or conceptual framework has emerged to explain or predict *what* about Internet use is addictive, or what the underlying addictive mechanism is. If the Internet was addictive, like drugs, everyone who used it a lot would be addicted."

Another psychologist who thinks about the psychology of cyberspace is John Suler, Ph.D., professor of psychology at Rider University, and author of the excellent online hypertext book *The Psychology of Cyberspace* <http://www1.rider.edu/~suler/psycyber/psycyber.html>. He has a section on Internet Addiction on his site, so I asked him what he thought of the APA presentations:

> In my opinion, the largest group of addicts are ghosts. They exist only in the minds of our media that loves to hype and scandalize and of some naive mental health professionals who want to lay claim to a new pathology. Another group gets caught up in the excitement and novelty of the many fascinating opportunities the Internet offers. Maybe they go overboard—causing problems in their "real world" life—but it's a phase. They realize what they can and can't get out of cyberspace, and return to the real world a bit wiser. The last group are those unfortunate, already vulnerable people who succumb to one or more of the many seductions of the Internet. They're unable to help themselves. These are the people that expert professionals are trying to help.

Storm King, president of International Society for Mental Health Online <www. www.ismho.org>, a doctoral candidate at Pacific Graduate School of Psychology in Palo Alto, first published "Is the Internet Addictive, or Are Addicts Using the Internet?" in December 1996

<http://www.concentric.net/~astorm/iad.html>. In his paper, which takes seriously the consequences of Internet addiction, King did what so many of today's research clearly failed to do: He sets out the methodological problems that must be overcome (how do you get someone whose behavior truly is pathological to report about it?), and acknowledges the complexities of attempting to attribute specific causes to human behavioral disorders. King, in recent communication, argued that the Internet does enable people who have an impulse control disorder such as pathological gambling to have greatly enhanced access to their vice via the Internet <http://www.concentric.net/~astorm/gamaddabs.html>.

Although I dispute the numbers, I don't dispute that some people spend inordinate amounts of time in chatrooms, MUDs, and BBSs, to the detriment of their social life and state of mind. People whose Internet use has damaged their lives deserve to be helped. Because people can use an otherwise helpful tool to accomplish harmful ends, a need remains for carefully designed research into the dynamics of pathological Internet use.

Another important issue remains to be considered—the persistence of the tale of Internet addiction and the societal opportunity cost associated with not publishing more relevant stories. Too many people who call themselves journalists have concentrated on the scare stories about Internet addicts, the sensational tales of online porno, sweeping claims based on research that is less than superficial. So many other stories need to be told about who has gained and lost power because of the Internet, who is profiting and who is losing because of the Internet, who has access and who doesn't, what opportunities the Internet provides for education, medicine, and citizen participation in civic affairs, what impacts Internet use might have on our thoughts, feelings, and social relationships. Scientists and communicators have to do a far better job than we have done so far if we're to use and regulate the new communication medium reasonably and knowledgeably.

Social Networks and the Nature of Communities

If I had encountered sociologist Barry Wellman and learned about social network analysis when I first wrote about cyberspace cultures, I could have saved us all a decade of debate by calling them "online social networks" instead of "virtual communities."

Social networks predated the Internet, writing, and even speech. Indeed, humans are not the only creature that makes use of social networks. When I met Wellman, author of many social science journal articles about social networks, he had just written an insightful paper comparing social networks to virtual communities.

Think of the people you encounter regularly—every month, let's say. Your biological family, the people from your job you hang out with, your congregation, service organization, the people in your neighborhood who would loan or borrow things, the people you talk with regularly on the telephone in the course of your professional or social activities, the delivery people who show up every day at your business, the people you email regularly.

In a recent email communication, Wellman added: "Ever since the late 1960s, I have arguing that community does not equal neighborhood. That is, people usually obtain support, sociability, information and a sense of belonging from those who do not live within the same neighborhood. They have done this through phoning, writing, driving, railroading, transiting, and flying. LA is the classic example of this, but in fact, this has been the prevalent means of connectivity in the western world at least since the 1960s" (Wellman, 2000).

Social networks emerge when people interact with each other continually, and they have to be useful or they wouldn't exist. Your social network can find you a job or a husband, information you need, recommendations for restaurants and investments, babysitters and bargains, a new religion, emotional support. Before writing letters became commonplace, social networks were confined to those people who saw each other face to face. Writing, public postal systems, telegraph, telephone, and the Internet each brought new means of extending one's social network to include people who are not in the immediate geographical vicinity, who share an interest rather than a location.

It has been argued that these increasingly mediated relationships are, for the most part, increasingly superficial. As I look at the way more and more of our social communication is migrating to email and cell phone, instant message and online greeting card, I tend to agree. At the same time, it certainly is possible to maintain deep relationships through letters, telephone calls, or online chats. Like all technologies, communication tools come with a price: Alienation might be the cost of the power

of abstraction. We might do better by ourselves by paying more attention to how we're using the powers of abstraction.

Social network analysis provides a useful framework for discussing the impact of online socializing. It counters the critique of virtual communities as alienating, dehumanizing substitutes for more direct, less mediated human contact. The notion of "strong ties and weak ties" is a useful part of that conceptual framework. The classic document explicating this idea is "The Strength of Weak Ties" (Granovetter, 1973). A weak tie is an alumnus of your alma mater, a stronger tie would be members of your college sorority or fraternity you actually lived with, an even stronger tie would be your roommate. A social network with a mixture of strong ties, familial ties, lifelong friend ties, marital ties, business partner ties, is important for people to obtain the fundamentals of identity, affection, emotional and material support. But without a network of more superficial relationships, life would be harder and less fun in many ways. Weaker ties multiply people's social capital, useful knowledge, ability to get things done.

When asking questions about the impact of any technology on community, I have learned to avoid romanticizing the notion of community, of assuming a state of pastoral existence that once existed in pretechnology small towns. There is an indisputable merit to living your life in the same place, loving or hating or putting up with the same people day after day, making decisions together with people you don't necessarily like, reducing the number of your social relationships and perhaps increasing their depth. But there is a cost to this long lost *Gemeinschaft* of the village, the hamlet, the small town, as well. If the shadows of urban and mediated experience are alienation and superficiality, the shadows of the traditional community are narrow-mindedness and bigotry.

In *All That Is Solid Melts into Air: The Experience of Modernity* (Berman, 1982), Marshall Berman claims that Goethe's Faust is a tale of the transition to modernity and includes lessons about how cruel those pastoral communities of premodern times could be. When Faust bespoils the reputation of the maiden Gretchen, her warm, small, unmediated community of strong-tie relationships persecutes her to the point of suicide. How many people flee the idylls of small towns because they look or think or act differently than the local norm? Just as virtual communities have attractive and unattractive aspects, so do other forms

of community. As Berman wrote: "So long as we remember Gretchen's fate, we will be immune to nostalgic yearning for the worlds we have lost."

I must therefore reconsider and retract the words I originally published here in 1993. I owe it to my critics Fernback and Thompson for pointing out <http://www.Well.com/user/hlr/texts/VCcivil.html> that I clearly proclaimed a nostalgia for community lost when I wrote:

> Virtual communities might be real communities, they might be pseudocommunities, or they might be something entirely new in the realm of social contracts, but I believe they are in part a response to the hunger for community that has followed the disintegration of traditional communities around the world.

The disintegration, I discovered, has been an ongoing process ever since the development of the alphabet. And human relationships are too complex to be judged as either "deep" or "shallow," with nothing in between. But I have come to see how the benefits of communication tools have always come with a less visible cost. There is no denying that good things can be lost or destroyed by harmful use of tools and social systems, or there would be more redwoods, rainforests, town squares, and convivial public transit systems and less pavement, fewer vehicles, and cleaner air and water. Before we charge off to preserve those good things new media might threaten, we need to understand and agree upon what those good things are, who they are good for, and why we agree they are good. Do we want cohesive societies . . . or democratic ones? Do we want warm communities or innovative ones? Where are the spectrums of alternatives between these extremes? What are the right questions to ask about the impact of virtual communities on geographic community—the questions whose answers might improve our lives or defend against disaster?

The best attempt by social scientists to address some social critiques of virtual community is, in my opinion, "Virtual Communities as Communities: Net Surfers Don't Ride Alone" (Wellman and Gulia, 1999). Wellman and Gulia point out the vast excluded middle between virtual community utopianism and the most emphatic critics of life online, and review the findings of social science research to address seven key questions regarding virtual community:

> 1. Are relationships on the Net narrow and specialized or are they broadly based? What kinds of support can one expect to find in virtual community?

2. How does the Net affect people's ability to sustain weaker, less intimate relationships and to develop new relationships? Why do Net participants help those they hardly know?

3. Is support given on the Net reciprocated? Do participants develop attachment to virtual communities so that commitment, solidarity, and norms of reciprocity develop?

4. To what extent are strong, intimate relationships possible on the Net?

5. What is high involvement in virtual community doing to other forms of "real-life" community involvement?

6. To what extent does participation on the Net increase the diversity of community ties? To what extent do such diverse ties help to integrate heterogeneous groups?

7. How does the architecture of the Net affect the nature of virtual community? To what extent are virtual communities solidarity groups (like traditional villages) or thinly connected Webs? Are virtual communities like "real-life" communities? To what extent are virtual communities entities in themselves or integrated into people's overall communities?

Although they don't intend to argue for definitive answers, Wellman and Gulia look at the literature of social science research, especially social network analysis, and propose ways in which the existing data can illuminate these questions.

In regard to the first question, Wellman and Giulia wrote:

> The standard pastoralist ideal of in-person, village-like community has depicted each community member as providing a broad range of support to all others. In this ideal situation, all can count upon all to provide companionship, emotional aid, information, services (such as child care or health care), money, or goods (be it food for the starving or a drill for the renovating).
>
> It is not clear if such a broadly supportive situation has ever actually been the case—it might well be pure nostalgia—but contemporary communities in the western world are quire different. Most community ties are specialized and do not form densely knit clusters of relationships. For example, our Toronto research has found that except for kin and small clusters of friends, most members of a person's community network do not really know each other. Even close relationships usually provide only a few kinds of social support. Those who provide emotional aid or small services are rarely the same ones who provide large services, companionship, or financial aid. People do get all kinds of support from community members but they have to turn to different ones for different kinds of help. This means that people must maintain differentiated portfolios of ties to obtain a wide variety of resources. In market terms, they must shop at specialized boutiques for needed resources instead of casually dropping in at the general store. (Wellman, 1992)

Wellman and Gulia suggest that the nature of the Internet serves to amplify this specialization and diversification of personal portfolios of social ties. They point out how virtual communities can organize, segment, and separate kinds of social ties, from those that furnish professional information to those that provide emotional support. They note that "Emotional support, companionship, information, making arrangements, providing a sense of belonging are all non-material social resources that are relatively easy to provide from the comfort of one's computer."

In regard to their second question, Wellman and Gulia observed that people often provide information, support or favors for people they have never met—strangers. The weak ties enabled by online relationships, while perhaps reducing the depth of relationships, can help increase the diversity of relationships—the number of different kinds of people in one's social network.

To the third question, they cite evidence that there is reciprocity online and attachment to virtual communities. Indeed, the idea that cyberspace is a place where sharing is encouraged is itself a norm that influences behavior: "Norms of generalized reciprocity and organizational citizenship are another reason for why people help others online." In most of the rest of the world of human activities, competition is the ruling norm. Building something collaboratively that creates a value for all who use it was one of the enduring values of the people who built the antecedents of today's Internet back in the 1970s and 1980s.

The ARPAnet and Internet cultures that preceded the Web by thirty years were built on norms of collaboration and cooperation. The Net was a place where informal gift economies enriched life and thought for everyone who participated. Minimal "netiquette" in social dealings, a willingness to share resources when others request them, a commitment to put value in as well as take it out of the Net are what made the Internet attractive to grow to its present status. But many question whether those norms have survived the waves of millions of newcomers and the abuse of the commons in the form of spam, chain email, viruses, and virus hoaxes. If, as Wellman and Gulia assert, social science data shows that norms of reciprocity and organizational attachment exist online, will they continue to do so? Or are they a resource that can only live in the early stages of a network economy?

The all-important and much-obviated question of whether high involvement in virtual communities removes people from involvement in their physical communities led Wellman and Gulia to several questions about the question itself. First, they questioned the certainty that "community" is a zero-sum game, that online involvement necessarily displaces offline communication.

Second, they point out that fears of virtual community in this vein indirectly "demonstrate the strength and importance of online ties, and not their weakness."

Third, they note that the question is based on a false comparison between virtual communities and unmediated, face-to-face communities. Do the critics mean communities where nobody ever uses a telephone? Citing Wellman's own research, the authors claim: "In fact, most contemporary communities in the developed world do not resemble rural or urban villages where all know all and have frequent face to face contact. Rather most kith and kin live further away than a walk (or short drive), so that telephone contact sustains ties as much as face-to-face get-togethers" (Wellman, Carrington, and Hall, 1988).

Fourth, they point out that most people don't divide their worlds into strictly segregated online and offline portions: Online discussions are one way that people make friends offline.

Fifth, the existence of webs of personal relationships via private email is not visible to most research, and "provides the basis for more multiplex relationships to develop. . . ." In particular, they cite the "invisible colleges" of scholars who know each other well, meet once a year at most, but stay in touch online much more intensively via email, listservs, newsgroups, and web conferences.

Wellman and Gulia concluded about the relationship between online and offline community:

> In sum, the Net supports a variety of community ties, including some that are quite close and intimate. But while there is legitimate concern about whether true intimacy is possible in relationships that operate only online, the Net promotes the functioning of intimate secondary relationships and weaker ties. Nor are such weaker ties insignificant. Not only do such ties sustain important, albeit more specialized, relationships, but the vast majority of informal interpersonal ties are weak ties, whether they operate online or face-to-face. Current research suggests that North Americans usually have more than 1,000 interpersonal relations, but that only a half-dozen of them are intimate and no more than 50 are significantly

strong (Kochen, 1989; Wellman, 1992). Yet, in the aggregate, a person's other 950+ ties are important sources of information, support, companionship, and a sense of belonging.

Wellman and Gulia are less sanguine about the data regarding whether the Net increases community diversity. Noting that all people in contemporary communities belong to a number of different partial communities, which expose them to a diverse set of social worlds, the authors remind us that the diversity of the online social world depends, first of all, on who is online: "Possibilities for diverse communities depend also on the population of the Net having diverse social characteristics." I'll address the issue of the "digital divide" later in this chapter.

Are virtual communities "real?" Wellman and Gulia argue that "The limited evidence available suggests that the relationships people develop and maintain in cyberspace are much like most of the ones they develop in their real life communities: intermittent, specialized, and varying in strength." The net supports exchanges of information strongly, but does not hinder the exchange of communications of emotional support, as well. Specialized communities "foster multiple memberships in partial communities. At the same time, the ease of group response and forwarding can foster the folding-in of formerly separate Net participants into more all-encompassing communities."

In their conclusion, Wellman and Gulia did not try to claim that social cyberspace is good or evil or that we know anywhere near enough to judge: "It is time to replace anecdote with evidence. The subject is important: practically, scholarly, and politically. The answers have not yet been found. Indeed, the questions are just starting to be formulated."

Formulating the right questions about radically new phenomena sometimes requires thinking about old ideas in new ways. Are entirely new methodologies for social scientific inquiry required to deal with entirely new forms and media for human relationships? Wellman and Gulia point in that direction. Another social scientist makes the claim more explicitly. K. A. Cerulo, Ph.D., claims, in "Reframing Social Concepts for a Brave New (Virtual) World," (Cerulo, 1997), that "Recent developments have touched issues at the very heart of sociological discourse—the definition of interaction, the nature of social ties, and the scope of experience and reality. Indeed, the developing technologies are creating an expanded social environment that requires amendments and

alterations to ways in which we conceptualize social processes" (p. 49).

Cerulo questions the fundamental assumption made by many critics, that face-to-face communication is necessarily primary, more authentically human, than mediated communication.

Cerulo proposes that social scientists and communication researchers look again, and with new eyes, at the definitions they base their assumptions and theories on—definitions of social interaction, social bonding, and empirical experience. Must all assumptions about social interaction be framed in terms of face-to-face communications? Do social bonds require geographic co-presence? And is it possible for ethnographers of cyberspace to do their work without becoming participant observers in virtual communities?

Challenging the assumption that physical co-presence is the benchmark for social interaction, Cerulo says: "'We speak of the closeness and trust born of such mediated connections using terms such as pseudo-gemeinschaft, virtual intimacy, or imagined community. Such designations reify the notion that interactions void of the face-to-face connection are somehow less than the real thing."

The question of how virtual and geographic communities relate to each other has not been confined to theorists. In the first edition of *The Virtual Community*, I noted the birth of the "Freenet" and "Community Networking" movements in the early 1990s. Hundreds of experiments were spawned. What happened?

In 1996, Douglas Schuler's book *New Community Networks: Wired for Change* provided both a manifesto and a handbook for community network building (Schuler, 1996). Although space here does not permit an adequate review of community networks over the past seven years, it's worth noting that a whole class of community networks foundered on a weak business model (those that supported themselves by being Internet service providers), that well-funded and carefully designed experiments (like Blacksburg Electronic Village and Toronto's Netville) have thrived, that hundreds of others (like the Appalachian Center for Economic Networks) have managed to survive economically and slowly build social networks that bring people face to face rather than separating them by screens. I can only mention a few examples of the hundreds of community network enterprises all around the world.

Blacksburg Electronic Village (BEV) is the one most journalists write about, because it had the most going for it early in the game. BEV <http://www.bev.net/> has succeeded because it grew out of a collaboration among knowledgeable community institutions that were willing to experiment, a local communications corporation, and a research university that was willing to contribute staff and resources to find out what would happen if you gave an entire community ready access to high-speed Internet connections and community services.

Virginia Tech, the Town of Blacksburg, and Bell Atlantic set out in 1991 to offer Internet access to every citizen in town. BEV launched in October 1993. By the summer of 1997, more than 60 percent of the town's 36,000 citizens regularly used the Internet, 70 percent of the local businesses (more than 250) advertised online. Blacksburg senior citizens meet via listserv <http://www.bev.net/community/seniors/>. Instead of watching local dollars flow through the Internet on their way out of town, hundreds of local merchants participate in main street e-commerce through an online mall <http://www.bev.net/mall/>. By late 1999, more than 87 percent of town residents were online and more than 400 area businesses were listed on the BEV Village Mall.

Another "wired neighborhood" in Toronto was the subject of research by sociologists Keith N. Hampton and Barry Wellman, who reported their results online ("Netville Online and Offline: Observing and Surveying a Wired Suburb" [Hampton and Wellman, 1999]). In their abstract, the authors state:

> A connected society is more than a populace joined through wires and computers. It's a society whose people are connected to each other. For the past two years we have been looking for community online and offline, locally and globally, in the wired suburban neighborhood of "Netville." We want to find out how living in a residential community equipped with no cost, very high speed access to the Internet affects the kinds of interpersonal relations people have with coworkers, friends, relatives, and neighbors.

In their conclusion, they write:

> Preliminary analysis suggests that the Internet supports a variety of social ties, strong and weak, instrumental, emotional, social and affiliative. Relationships are rarely maintained through computer-mediated communication alone, but are sustained through a combination of online and offline interactions. Despite the ability of the Internet to serve as a global communication technology, much online activity is between people who live (or work) near each other, often in Netville itself. In Netville, the local network brought neighbors together to

socialize, helped them to arrange in-person get-togethers—both as couples and as larger groups (barbecues, etc.)—facilitated the provision of aid, and enabled the easy exchange of information about dealing with the developer. The high rate of online activity led to increased local awareness, high rates of in-person activity, and to rapid political mobilization at the end of the field trial.

Although many efforts in community networking failed because they lacked the funds and institutional resources available to BEV, many communities have succeeded in urban and rural middle class and lower-income communities. On January 8, 2000, the *Charlotte News and Observer* published a story entitled "A World Wide Web of cul-de-sacs" by staff writer Sarah Lindenfield <http://www.news-observer.com/daily/2000/01/08/tri00.html>:

John Wyman remembers the old days, before his neighborhood went online with a Web page. Every couple of weeks, he would pay $20 to make 170 copies of a community flier. Then he would drive up to each home to deliver them.

"Do you know what that does to your clutch, and do you know how long that takes?" Wyman asked. "With the Web site, I can go in there and, in 10 seconds, have it updated for everybody."

Today, Wyman is out of the printing business. Of the 170 homes in the Hardscrabble Plantation subdivision in northern Durham County, 155 have access to e-mail and the Web. Residents read neighborhood announcements and newsletters online, and they pass the information to the 15 neighbors who aren't connected.

Hardscrabble Plantation is among at least 65 Triangle neighborhood groups that have ventured out on the Internet. Planters Walk in Knightdale, Alyson Pond in Raleigh, Park Village in Cary and Walden Pond in Durham are also among those that write newsletters, name board members or simply list social activities on Web sites.

A small, but growing, group of for-profit and nonprofit firms are designing sites just for neighborhoods. And more of the 5,100-plus Triangle subdivisions are looking for new ways to connect.

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Internet neighborliness isn't completely replacing knocking on doors with fresh-baked brownies, or strolling down the street and waving to people on front porches.

Instead, residents see the Web as another way to communicate within the community.

Consider ACEnet, the Appalachian Center for Economic Networking <http://www.seorf.ohiou.edu/~acenet/>, "a community-based economic development organization located in rural, southeastern Ohio. Our purpose is to work with others in the area to create a healthy regional economy with many successful businesses and good jobs. Our goal is for

people with low incomes to move out of poverty permanently through employment or business ownership." As the name reveals, and as a closer inspection of their programs makes clear, ACEnet is an economic network. Relationships with banks, businesses, and educational organizations are the core of the project. It's not about technology, but technology helps it happen, and helps tie together the different parts of the community involved in the effort. In particular ACEnet uses the Internet to link businesses with new markets and market resources such as trend information; with resources both near and far through their community network; with one another through an electronic mailing list; and to link their Appalachian community with similar communities across the country.

These examples are not offered as evidence that electronic utopia through many-to-many communications is around the corner, but as a small sample of the large number of active experiments that are still going on. Before theorists whose research is conducted primarily in libraries dismiss unequivocally the possibility that online communication can enhance rather than erode face-to-face communication in geographic communities, perhaps they should also pay attention to the results of these experiments.

One of the early enthusiastic backers of community networking, Mario Morino, now believes that community networks have failed, thus far, to live up to the promise we saw in them at the original Ties That Bind conference. Organized by Steve Cisler, a librarian at Apple Computer, this was the first annual face-to-face get-together of international networkers. The Morino Foundation was one of the sponsors of that first meeting, and of several efforts in the years since. Says Morino today:

> Community networking has been a movement in search of a cause and this has been its curse. It appeared that community networking never clearly articulated its purpose and this ambiguity caused some to view it from a technical perspective, others to view it as the electronic town, while others saw it as a means of activism. Its real potential lay in bringing people together, to help people connect with one another, and more importantly, to help them toward an outcome. I wonder what would have happened had the talent and innovative minds that went into community networking focused on worker preparation programs. What would have happened if community networks had rallied around the challenge of eliminating literacy, eradicating lead poisoning for children, preparing our teachers to integrate technology into their curriculums and learning delivery, or delivering health information to our most impoverished neighborhoods?

> Instead, I believe the self-imposed limitation on community networking was the lack of a real vision for how it could have helped society in a focused way. The concept still holds remarkable potential. The world still hasn't grasped the potential of the online learning community. (Morino, 2000)

The foundation of a modern technological society is a population of educated individuals—humans who have been trained how to think. When new phenomena (alphabets, Internets) enable people to change the way we think, we then change the way we relate to one another. When human relationships change, human institutions change. What effects do virtual community and many-to-many communication technologies have on that fragile and precious institution, democracy? Will our grandchildren be citizens of a human-guided social system or components in a social system that guides humans? The question that trumps all the other questions is whether life online will contribute to political liberty, or diminish it.

The Prospects for the Public Sphere

Will citizens use the Internet to influence the nations of the world to become more democratic? Or will our efforts be ineffectual or even work to amplify the power of state or corporate autocracies? All other social questions about the impact of life online are secondary to this one.

Is the virtual community simply a self-hypnotizing subset of the culture industry? Previously (chapter 10, "Disinformocracy"), I pointed to the more skeptical worldviews of Baudrillard and Debord (global media productions as "simulacra" and "the society of the spectacle," respectively). I didn't get into Adorno and Horkheimer of the "Frankfurt School" of political-cultural theory. It has been made clear to me more recently that no analysis of the virtual community's political significance should ignore these thinkers who deliberated about the political implications of mass entertainment in the decades preceding the emergence of computer technology.

In the first edition of *The Virtual Community*, I coined the neologism *disinfotainment* to describe that sphere in which special effects, television laugh tracks, manufactured "news" programming, and cross-media promotion of cultural products serve to distract and misinform a pacified population of unprotesting consumers, as well as to return profits to the

owners of the cultural producers. I also dabbled in the work of Jürgen Habermas, because his notion of the "public sphere" intuitively seemed to me the best way to frame the political import of social cyberspacs. If I can be allowed to temporarily jack up the theoretical infrastructure for a social theory of cyberspace I started building into the clear blue sky of 1993, I need to insert Adorno and Horkheimer's ideas.

Adorno and Horkheimer were concerned with the fusion between the culture industry and mindless entertainment. Amusement is specific to the twentieth century mass cultural industry and is simply another part of the cycle of routinization. Their attack on the culture industry, first published in 1944, claimed that mass art was based on "a medicinal bath" of amusement and laughter, rather than on transcendence or happiness (Adorno and Horkheimer, 1972). People were amused and liberated from the need to think and their laughter affirmed existing society.

Are virtual communities part of a last hold out from the commodification of media culture, a place of resistance and autonomy and self-empowerment? A place where we have a chance of seeing reality for what it is, so that we can refuse to accept the present and try to change the future. Or are they disinfotainment in the guise of antidisinfotainment? Is it another way to amuse ourselves to death? These are the key questions Adorno and Horkheimer would most likely raise about the new phenomena of social cyberspaces. (Adorno died in 1969, the year the ARPAnet was born.)

Adorno and Horkheimer saw the culture industry as one that no longer tolerated autonomous thought or deviation to any degree because of the economic necessity for rapid return of capital investment. More than that, mass culture does not question the society it exists in and, instead, continually "confirms the validity of the system"(Adorno and Horkheimer, 1972, p. 129). Adorno and Horkheimer saw how acceptance and reaction were permeating more and more spheres of life, and how the culture of mass society with its corporate rather than aesthetic ideology eroded cultural standards in order to quell any forms of expression that might contest the given order, producing less freedom, less individuality, and ultimately, less happiness.

Their primary concern was the transformation of society, for the continuance of civilized humanity. They saw democracy and freedom to choose as diverging paths, but they found that "freedom to choose an

ideology proved only to be freedom to choose what is always the same" (Adorno and Horkheimer, 1972, p. 167). For them, autonomy allows a conception of a different world and communicates the possibility that reason can penetrate existing barriers, allowing some to take a stance against modern culture to give the world a new direction, with a hope for the liberation of the human spirit.

Their boldest claim was that culture had become a form of domination, that the culture industry operates to diffuse oppositional consciousness and individualism. For them, the industry was selling packages of ideas and beliefs. People no longer had to think for themselves, since "the product prescribes every reaction by signals" (Adorno and Horkheimer, 1972, p. 137). It is characterized by a pervasive manipulation of the consumer whose intellectual capacity is continually underestimated. There is a profusion of sameness and repetition by using sets of interchangeable details, sweeping away all particularity and flattening out anything distinct, changing the nature of society as well as the way we perceive reality. One of the conclusions of the Frankfurt School was that the consumer society encouraged social and political apathy, even before the television era. I offer this extended quote not as an endorsement of this rather determinist view, but because it's a sobering attack on the foundations of any utopian ideas about democratizing media, from the earliest days of mass media.

> The sociological theory that the loss of the support of objectively established religion, the dissolution of the last remnants of precapitalism, together with technological and social differentiation or specialization, have led to cultural chaos is disproved every day; for culture now impresses the same stamp on everything. Films, radio and magazines make up a system which is uniform as a whole and in every part.
>
> Even the aesthetic activities of political opposites are one in their enthusiastic obedience to the rhythm of the iron system. The decorative industrial management buildings and exhibition centers in authoritarian countries are much the same as anywhere else. The huge gleaming towers that shoot up everywhere are outward signs of the ingenious planning of international concerns, toward which the unleashed entrepreneurial system (whose monuments are a mass of gloomy houses and business premises in grimy, spiritless cities) was already hastening. Even now the older houses just outside the concrete city centers look like slums, and the new bungalows on the outskirts are at one with the flimsy structures of world fairs in their praise of technical progress and their built-in demand to be discarded after a short while like empty food cans. Yet the city housing projects designed to perpetuate the individual as a supposedly independent unit in a small

hygienic dwelling make him all the more subservient to his adversary—the absolute power of capitalism.

Because the inhabitants, as producers and as consumers, are drawn into the center in search of work and pleasure, all the living units crystallize into well-organized complexes. The striking unity of microcosm and macrocosm presents men with a model of their culture: the false identity of the general and the particular. Under monopoly all mass culture is identical, and the lines of its artificial framework begin to show through. The people at the top are no longer so interested in concealing monopoly: as its violence becomes more open, so its power grows. Movies and radio need no longer pretend to be art. The truth that they are just business is made into an ideology in order to justify the rubbish they deliberately produce. They call themselves industries; and when their directors' incomes are published, any doubt about the social utility of the finished products is removed.

Interested parties explain the culture industry in technological terms. It is alleged that because millions participate in it, certain reproduction processes are necessary that inevitably require identical needs in innumerable places to be satisfied with identical goods. The technical contrast between the few production centers and the large number of widely dispersed consumption points is said to demand organization and planning by management. Furthermore, it is claimed that standards were based in the first place on consumers' needs, and for that reason were accepted with so little resistance. The result is the circle of manipulation and retroactive need in which the unity of the system grows ever stronger. No mention is made of the fact that the basis on which technology acquires power over society is the power of those whose economic hold over society is greatest.

A technological rationale is the rationale of domination itself. It is the coercive nature of society alienated from itself. Automobiles, bombs, and movies keep the whole thing together until their leveling element shows its strength in the very wrong which it furthered. It has made the technology of the culture industry no more than the achievement of standardization and mass production, sacrificing whatever involved a distinction between the logic of the work and that of the social system. This is the result not of a law of movement in technology as such but of its function in today's economy. The need which might resist central control has already been suppressed by the control of the individual consciousness. The step from the telephone to the radio has clearly distinguished the roles. The former still allowed the subscriber to play the role of subject, and was liberal. The latter is democratic: it turns all participants into listeners and authoritatively subjects them to broadcast programs which are all exactly the same.

No machinery of rejoinder has been devised, and private broadcasters are denied any freedom. They are confined to the apocryphal field of the "amateur," and also have to accept organization from above. But any trace of spontaneity from the public in official broadcasting is controlled and absorbed by talent scouts, studio competitions and official programs of every kind selected by professionals. Talented performers belong to the industry long before it displays them; otherwise they would not be so eager to fit in. The attitude of the public, which ostensibly and actually favors the system of the culture industry, is a part of the system and not an excuse for it.

Assuming that the prospect for individual liberty is as bleak as the neo-Marxist Frankfurt School portrayed it, has the technical power of the Net changed the culture machine portrayed by Adorno and Horkheimer? Is there is a loophole in their critique that many-to-many communication might exploit? The broadcast technologies the Frankfurt School wrote about in 1944 centralized the power to produce and distribute cultural material, and continued to grow and consolidate as cultural products grew digital in the 1990s. The owners of the culture industry did not create the Internet, however. The Internet descended from the atomic bomb, not the silver screen. Does many-to-many turn the tables on culture monopoly, or will it be absorbed? While Sony is not the same as your desktop video on the Web, the monopolies and near-monopolies that used to control the culture industry through the high cost of culture-producing technology now are no longer alone in the mediasphere.

The Internet didn't matter to the powers that be when I first wrote about virtual communities. When I interviewed executives at American, Japanese, and French telecommunications companies in 1992, they were unanimous in their claim that their more serious enterprises regarded the Internet as a toy. A VP from Cap Cities, the company that owned the ABC network, told me at a lunch in 1992 that communicating via the Internet was a temporary fad, like CB radio in the 1980s. The Netscape-Yahoo-AOL-Microsoft Internet industry changed all that. When AOL bought Time-Warner in 2000, a milestone was established. At this point, Adorno and Horkheimer would remind us that when there is money to be made, when economic aspects of media culture become entrenched, then more controls will be instituted because there is more at stake.

"No machinery of rejoinder has been devised, and private broadcasters are denied any freedom." Is many-to-many a machinery of rejoinder that empowers media freedom for many who have been denied such power, as the printing press was? The difference, I am convinced, lies not in the nature of the technology, but in the way it is used. Manipulation, deception, and marketing are not the only imaginable uses for new media. What happens when millions of people begin to create their own cultures and communicate with each other, even giving them away to each other?

The most serious critique of this book and the most serious concern about the social impact of the Internet is the challenge to my claim that many-to-many discussions could contribute to the health of democracy

by making possible better communications among citizens. It seems that a great deal of the critique, although not all, is directed at one specific paragraph. I wrote this in 1993:

> We temporarily have access to a tool that could bring conviviality and understanding into our lives and might help revitalize the public sphere. The same tool, improperly controlled and wielded, could become an instrument of tyranny. The vision of a citizen-designed, citizen-controlled worldwide communications network is a version of technological utopianism that could be called the vision of "the electronic agora." In the original democracy, Athens, the agora was the marketplace, and more—it was where citizens met to talk, gossip, argue, size each other up, find the weak spots in political ideas by debating about them. But another kind of vision could apply to the use of the Net in the wrong ways, a shadow vision of a less utopian kind of place—the Panopticon.

Two of the criticisms directed at this paragraph have caused me to reconsider my original statement. The phrase "tool that could bring" has an implication of technological determinism that I simply let slip through because I wasn't paying sufficient attention. Now, I pay more attention when discussing the way people, tools, and institutions affect each other. It's not healthy to assume we don't have a choice. Tools aren't always neutral. But neither do they determine our destinies, immune to human efforts. The rest of the book isn't overly deterministic, but that paragraph is probably cited and challenged by dozens of scholarly essays over the years for reasons I have humbly come to understand.

Another flaw in my original draft is that I failed to make it clear that I was identifying, not advocating, the utopian version of an "electronic agora." I also should have mentioned that the affluent zeitgeist of Athenian democracy rested on the backs of slaves. As David Silver, one of the most thoughtful critical commentators, told me: "I'd make it clear in your new edition: neither Athens nor America nor cyberspace is a utopia."

I agree, now that critics have helped educate me. I would argue that we can still learn something from both experiments about the social nature of democracy, and about the influence of public communications on political action.

Some critics have claimed that by concentrating on the Panoptic aspects of possible Internet futures as the only dystopian alternatives, I neglected to say anything about the influence of global capitalism. In fact, the Panoptic aspects of the Web today have less to do with the

government spying on your every move, but with invisible and commonplace events that take place with the click of a mouse—information snooped out about your habits by web sites that install information on your hard disk and read information previously stored on your computer. Capitalist competition, not totalitarian surveillance, has forced the rapid evolution of technologies that help vendors to zero in on precisely the products they need to bring to your attention.

These critics have their own evidence. It can't be denied that over the past five years the Internet has been a powerful an instrument of globalization and the centralization of great wealth in organizations like Sprint, MCI-Worldcom, Microsoft, Newscorp, AOL-Turner-Time-Warner. It is not outlandishly imaginative to think that a future Microsoft-AOL-Time-Warner-Sprint-MCI-Disney-Sony might merge into being. What kind of choice of access to the Web or variety of opinion or many-to-many broadcast capabilities citizens have then? More important, will it put us back in the broadcast age, where a small number of people controlled the power to inform, influence, and persuade? What happens when the decentralized network infrastructure and freewheeling network economy collides with the continuing growth of mammoth, global, communication empires? We'll know soon. The experiment is just beginning, but well underway.

Which citizens are going along for the ride as broadband and wireless networks enmesh every part of the human environment? Who will benefit from the replacement of physical goods by knowledge products? Who will fail to benefit?

In recent years, strong evidence has emerged of a "digital divide" between poor and middle-class households, white and nonwhite households, in regard to ownership of personal computers and access to the Internet. As long as that divide continues to grow even while usage of new media grows explosively, no discussion of technology-assisted democracy can begin without mentioning the key question of who can afford to take advantage of new media.

One thing all of the people online have in common today is that we have access to a computer and an Internet account. There are 200 million Internet users in a global population of 6 billion. According to a 1999 report from the U.S. National Telecommunications and Information Administration, forty percent of American families have computers,

but only eight percent of households earning less than $10,000 a year have PCs, and just three percent of that group have access to the Internet. The disparity between the highest and lowest income levels increased between 1997 and 1998. Urban households with incomes above $75,000 are more than 20 times more likely than low income rural households to have home Internet access.

On February 2, 2000, President Clinton toured a Washington, D.C., school with AOL CEO Steve Case and proposed spending more than $2 billion in tax breaks over 10 years as incentive for large-scale donations of computer gear and community technology centers. The idea of community technology centers where people can come to learn how to use Internet technology in their lives was a direct appropriation of an activist effort that has struggled on a shoestring for years, "CTCnet" <http://www2.ctcnet.org/ctcweb.asp>. Clinton also called for $150 million in federal funds to train teachers and $100 million for low-income urban and rural communities.

A group of Silicon Valley executives have initiated an organization called "ClickStart," a nonprofit devoted to connecting low-income people to the Internet, ideally with the help of government subsidies. For a copayment from the citizen of $5 per month, each participant in the proposed program would receive a $10 monthly voucher to buy hardware and Internet access from those vendors who make their products and services available at low rates to the program. The program resembles in some ways the Rural Electrification Administration, a federal program initiated in 1935 to bring electrical power and telephone service to rural regions.

The millions of lower-income citizens who might go online as the result of ClickStart's efforts will also increase tomorrow's market for high-tech product and services. From the point of view of the socially conscious Silicon Valley libertarian, this is a simple answer to social inequality that's also good business. They might be right. It's hard to imagine a future for public-private partnerships if there isn't something to gain for the private part of the enterprise.

Henry Ford paid his workers well enough, and made his Model T automobiles inexpensively enough that his employees could afford to buy them. In February 2000, perhaps taking a leaf from the founder, the Ford Motor Company announced that it would make a personal

computer, color printer, and Internet access available to each of its 350,000 employees for $5/month (http://dailynews.yahoo.com/h/ap/20000203/ tc/ford_computers_2.html).

Nobody will know for years to come whether or not these programs or other government or nonprofit attempts to address the problem of the digital divide will actually be implemented, or whether they will succeed. The question remains: Will the advantages of online community be limited to those who can afford it at market rates? Is this a fundamental social inequality that must be addressed on all levels of community, society, and nation-state? Or is the idea of a "digital divide" simply a marketing device for describing fundamental economic disparity in terms of consumption of technology products? If our concern as a society is for the welfare of our poorest citizens, perhaps food and shelter should have higher priority on taxpayer money. Or perhaps the inherent wealth captured by Moore's Law and knowledge communities can create a rising economic tide that will lift all boats, as Silicon Valley libertarians claim.

This book was not intended to be a critique of global capitalism or the problems the culture industry poses for democracy, but the power and gravitational pull of corporate power and opinion-shaping cannot be ignored in any speculation about the future of media. The matter of the public sphere is a most serious one. Without liberty, all the other questions are irrelevant.

In an age in which most of the journalism seen by most of the world is produced by a subsidiary of one of a few multinational entertainment companies, the question of what will remain truly "public" about communications is central today. It might not make sense tomorrow. If a theme park is all you know, you aren't going to be asking where all the real parks are. In America, the idea of "public property" has grown increasingly unfashionable in the physical world of freeways, malls, and skyscrapers. Is there still space in cyberspace for public property, public discourse, public opinion that emerges from informed deliberation among citizens?

Which brings us to the most serious challenge to the original draft of this book, that virtual communities might be bogus substitutes for true civic engagement or outright directly harmful to the public sphere. In 1995, two scholars, Jan Fernback and Brad Thompson, presented a talk, "Computer-Mediated Communication and the American Collectivity,"

at the annual convention of the American Communication Association. With the permission of the authors, I've hosted it on my web site since then <http://www.Well.com/user/hlr/texts/VCcivil.html>.

How certain can I be, sitting at my desk, tapping on my keyboard, about the reality and limits of the Net's political effectiveness? Would I bet my liberty on the democratizing potential of the Net? I'll have to say that the answer has to be "no." But that doesn't mean that I am convinced that we should do nothing about the way Internet media are used. To agree in theory that an action can have no consequences is to create a self-fulfilling prophecy. Therefore, I frame their critique by stating my belief that until it is proved impossible, it is important for citizens to attempt to influence the public sphere by their use of many-to-many media.

Fernback and Thompson present several arguments, but to me, the most serious paragraphs are these:

> For the reasons stated in the preceding section, the likely result of the development of virtual communities through CMC will be that a hegemonic culture will maintain its dominance. Certainly, it cannot be assumed that the current political and technical elites would willingly cede their position of dominance or knowingly sow the seeds of their own destruction.
>
> Indeed, it seems most likely that the virtual public sphere brought about by CMC will serve a cathartic role, allowing the public to feel involved rather than to advance actual participation. Communities seem more likely to be formed or reinforced when action is needed, as when a country goes to war, rather than through discourse alone. Citizenship via cyberspace has not proven to be the panacea for the problems of democratic representation within American society; although communities of interest have been formed and strengthened (as noted previously) and have demonstrated a sense of solidarity, they have nevertheless contributed to the fragmented cultural and political landscape of the United States that is replete with identity politics and the unfulfilled promise of a renewed vita activa.
>
> This research poses a larger question that has been addressed by other scholars (see Elshtain, 1995 and Lasch, 1995) which emphasizes the connection between the condition of fragmentation that exists within the American collectivity and democracy in theoretical terms. CMC does not, at this point, hold the promise of enhancing democracy because it promotes communities of interest that are just as narrowly defined as current public factions defined by identity (whether it be racial, sexual, or religious). Public discourse ends when identities become the last, unyielding basis for argumentation that strives ideally to achieve consensus based on a common good.
>
> If nothing else, the expressions of hope and desire for new modes of communication such as CMC speak volumes about the failures of present and past technologies to help create a just and equitable society. Perhaps these failures should

prompt us to re-examine why we continue to place so much hope in technology after so many disappointments. Ultimately, we believe, the hope placed in CMC is misplaced because change will occur not by altering the technology but by reforming the political and social environment from which that technology flows.

Finally, we suggest that the term virtual community is more indicative of an assemblage of people being "virtually" a community than being a real community in the nostalgic sense that advocates of CMC would seem to be endorsing. Our comments should not be construed as protests against the corruption of a term; we recognize that community has a dynamic meaning. Our concern is that the public is more likely to forget what it means to form a true community. If, on the other hand, virtual communities can lead to action, that may be the basis for the formation of real and lasting communities of interest. But until then, any change in the communications structure, such as the widespread use of CMC, is likely to be unsettling. Therefore, we must agree with Cooley, who wrote in 1909:

> [A] rapid improvement in the means of communication, as we see in our own time, supplies the basis for a larger and freer society, and yet it may, by disordering settled relations, and by fixing attention too much upon mechanical phases of progress, bring in conditions of confusion and injustice that are the opposite of free. (Cooley, 1909, p. 55)

Have we fixed "attention too much upon mechanical phases of progress?" Are we facing "conditions of confusion and injustice" at the same time that so many people are prospering and learning in the Net-enabled environment? The questions are sobering, but are the questions alone sufficient to prevent us from investigating further the potential of many-to-many media? So many experiments are springing up on the Internet to bridge the digital divide, to make tools available to citizens, teach media literacy. I would not stop watching these experiments to see if they work simply because good critics raise good questions about the democratizing potential of CMC. No theory can be any good if its effect is to prevent people from trying to improve their institutions. Are the critics themselves taking a deterministic stance that the hegemonic culture will maintain its dominance?

Perhaps the most useful point Fernback and Thompson raise is: "Ultimately, we believe, the hope placed in CMC is misplaced because change will occur not by altering the technology but by reforming the political and social environment from which that technology flows." If any population is to succeed in this alteration, are we to do it without tools? And assuming the success of such a reformation of the political and social environment, aren't we still faced with the challenge of learning how to

use technology? Or are we to abandon the factories and office buildings and return to hunting and gathering? I agree, and must emphasize, that hopes placed in CMC or any technology are false hopes. Hopes must be placed in humans. I believe that knowing how to use tools is part of any successful human enterprise.

Fernback and Thompson's serious challenges must also be weighed in the light of reports such as Christopher Mele, who documents the story of how a group of low-income residents of public housing, all African-American women, used online communications to transform and empower the residents association in a two-year battle with the housing authority: "Once wired, it is difficult to predict the effects of online communication for collective action conducted by disempowered groups. For the women activists at Jervay, their connection to the Internet peeled away some of the historic and systematic layers that blanketed access to essential information. Whether it translates to long-term success is perhaps less important than the positive effect upon the activist role of the women themselves" (Mele, 1999).

The power to publish and communicate has no magical ability to make democracy happen. Only people can do that. No tool can make democracy happen without the actions of millions of people—but those millions of people won't succeed without the right tools. Most of what needs to be done has to be done face to face, person to person—civic engagement means dealing with your neighbors in the world where your body lives. But an important part of the work to be done will be mediated by new communication technologies. We need to relearn and continue to teach the communication skills necessary for maintaining healthy democracies.

Information sources and communication media that were until recently the province of the wealthy and powerful are used daily by millions. Discourse among informed citizens can be improved, revived, restored to some degree of influence—but only if a sufficient number of people learn how to use communication tools properly, and apply them to real-world political problem-solving. Surely, this opportunity is worthy of serious consideration. Surely, we owe it to ourselves to make an effort to discover whether the charges of Fernback and Thompson and other critics are true in practice as well as theory.

The global corporations that have consolidated control of distribution of news and entertainment will continue to command attention, reap

profits, and exert influence. But they are no longer the only game in town. If there is one question that lies at the foundation of the uncertainty about the Internet's future it is whether the technical democratization of publishing will prove to be a credible challenge to existing publishing interests.

I believe the publicness of democracy has been eroded, for the reasons Neil Postman cited in *Amusing Ourselves to Death* (Postman, 1985): The immense power of television as a broadcaster of emotion-laden images, combined with the ownership of more and more news media by fewer and fewer global entertainment conglomerates, has reduced much public discourse, including discussions of vital issues, to soundbites and barrages of images.

In theory and a few practical examples, centralized opinion-shaping mechanisms are challenged by the decentralization afforded by many-to-many media. But that is far from saying that the future will be less manipulated and more freely chosen by informed citizens. Much remains to be done for that rosy scenario to become a reality.

Theories and opinions about the Internet are plentiful. A good question to ask is how many real online tools exist for citizens to use today? Are there examples of successful experiments in online civic involvement that ought to be widely replicated? As a definition of " civic involvement," I suggest the one offered in Robert Wuthnow's *Loose Connections: Joining Together in America's Fragmented Communities*: "Broadly conceived, civic involvement consists in participation in social activities that either mediate between citizens and government or provide ways for citizens to pursue common objectives with or without the help of government."

The public sphere is where Kim Alexander operates when her organization, the California Voter's Foundation <http://www.calvoter.org /aboutcvf.html>, uses email to organize a campaign to require political candidates to put their financial disclosures on the Internet. Civic involvement is what Paul Resnick and his students are trying to foster when they go door to door in their neighborhoods in Ann Arbor, Michigan, creating web pages and email lists intended to help people who live on the same block get to know one another <http://www.whothat.org>. The public sphere is what Steven Clift and colleagues at the Minnesota E-Democracy project <http://www.e-democracy.org> seek to extend when they bring candidates for state office online to publish position

statements and field questions from citizens. A little investigation reveals that dozens, probably hundreds, of profit-making and nonprofit enterprises are experimenting with different tools for civic involvement. Among the most notable are:

· CapAdvantage <http://www.capitoladvantage.com/> for communication with officials, and other citizens. Their page, titled "Tools for Online Grassroots Advocacy and Mobilization," offers a comprehensive guide to Congressional publications, directories to identify state and national congressional representatives. spot news and issues tracking.

· E-The People <http://www.ethepeople.com/> for petitions. "Welcome to America's Interactive Town Hall: Where Active Citizens Connect with Their Government and Each Other"

If your car is swallowed up by a pothole the size of Poughkeepsie, E-The People can help you find the person you need to tell about it. Simply come to our site, click on "roads and transportation," type in your address and we'll forward your note to the right officials in your city. And if your public works commissioner doesn't have Internet access, we'll convert your concern to a fax! Are you an organizer? With E-The People, you can start a petition about the same pothole and contact 10 neighbors to sign it—all on one site.

· Freedom Forum <http://www.freedomforum.org/> is a good example of vibrant discussion of political issues via message boards, along with Internet radio and news on rights. "The Freedom Forum is a nonpartisan, international foundation dedicated to free press, free speech and free spirit for all people."

· Civic Practices Network <http://www.cpn.org/> describes itself thus: "Born of the movement for a "new citizenship" and "civic revitalization," CPN is a collaborative and nonpartisan project dedicated to bringing practical tools for public problem solving into community and institutional settings across America."

· The title of the Freespeech.org page <http://www.freespeech.org/>. is "Free Speech Internet Television."

· VolunteerMatch <http://www.volunteermatch.org) matches volunteers with opportunities, enables nonprofit organizations and potential volunteers to get together. Since 1987, CompuMentor (http://www.compumentor.org/> has provided volunteer-based technology assistance to nonprofits.

· National Strategy for Nonprofit Technology <http://www.nten.org/nsnt.htm> is "a leadership network of nonprofit staff members, funders, and technology assistance providers working together to analyze the technology needs of the nonprofit sector, and to develop a blueprint for how it can use technology more effectively and creatively."

· Guidestar <http://www.guidestar.org> is a clearinghouse for financial information: "Find information on the activities and finances of more than 650,000 nonprofit organizations, the latest news on philanthropy, and resources for donors and nonprofits."

· While many big organizations are incorporating donation activities into their web sites, smaller sites are going with a donation service like i-charity <http://www.i-charity.net/>: "Free Internet fundraising service and online donations portal."

· Cause-related marketing type services like GreaterGood <http://www.greatergood.com/> provide online consumers the ability to send a portion of product purchase prices to designated organizations: "Shop where it matters."

· VoxCap <http://www.voxcap.com> aggregates tools and resources for online civic engagement as well as for "building a community of engaged citizens, where social capital can be accumulated and brought to bear," according to Jeff Fisher, VoxCap's Director of Community Development.

· Two enterprising political satirists quit their jobs in the winter of 2000 and hit the road in a van, following the early stages of the presidential campaign from the road, updating their web site daily from their own zany and well-informed angle. The site <http://www.y2kwhistlestop.com/> is well designed and informative as well as funny. Perhaps political journalism might follow their lead and loosen up.

· The Association for Community Networking <http://www.afcn.org> is a community of interest and support for the hundreds of people working to use Internet communications to improve social capital in face to face communities.

· The Living Constitution Society <http://www.wethepeople.org> is dedicated to creating a continuous flow of interrelationship between government, industry, academia, citizens, and nonprofit organizations.

If the public sphere is where people act as citizens by discussing the issues that concern them, and civil society is the general name for the associations that citizens organize for social, charitable, and political purposes, the name for the common wealth that they gain from acting cooperatively, in concert, rather than competitively as individuals seeking to maximize individual gain, is "social capital."

Civic Practices Network defines social capital this way (http://www.cpn.org/sections/tools/models/social_capital.html):

> Social capital refers to those stocks of social trust, norms and networks that people can draw upon to solve common problems. Networks of civic engagement, such as neighborhood associations, sports clubs, and cooperatives, are an essential

form of social capital, and the denser these networks, the more likely that members of a community will cooperate for mutual benefit. This is so, even in the face of persistent problems of collective action (tragedy of the commons, prisoner's dilemma, etc.), because networks of civic engagement:

· foster sturdy norms of generalized reciprocity by creating expectations that favors given now will be returned later;

· facilitate coordination and communication, and thus create channels through which information about the trustworthiness of other individuals and groups can flow, and be tested and verified;

· embody past success at collaboration, which can serve as a cultural template for future collaboration on other kinds of problems;

· increase the potential risks to those who act opportunistically that they will not share in the benefits of current and future transactions.

Social capital is productive, since two farmers exchanging tools can get more work done with less physical capital; rotating credit associations can generate pools of financial capital for increased entrepreneurial activity; and job searches can be more efficient if information is embedded in social networks. Social capital also tends to cumulate when it is used, and be depleted when not, thus creating the possibility of both virtuous and vicious cycles that manifest themselves in highly civic and uncivic communities.

The question of how to measure social capital is central to understanding the health of the public sphere. Indeed, as I will show later, there are those who question the idea that the social should be considered to be a form of capital. In an influential article, "Bowling Alone: America's Declining Social Capital" (*Journal of Democracy* 6:1, January 1995, 65–78), Robert Putnam documented a broad decline in civic engagement and social participation in the United States over the past 35 years. Citizens vote less, go to church less, discuss government with their neighbors less, are members of fewer voluntary organizations, have fewer dinner parties, and generally get together less for civic and social purposes. Putnam argues that this social disengagement is having major consequences for the social fabric and for individual lives. At the societal level, social disengagement is associated with more corrupt, less efficient government and more crime. When citizens are involved in civic life, their schools run better, their politicians are more responsive, and their streets are safer. At the individual level, social disengagement is associated with poor quality of life and diminished physical and psychological health. When people have more social contact, they are happier and healthier, physically and mentally

Putnam concluded his article prescriptively:

> In the established democracies, ironically, growing numbers of citizens are questioning the effectiveness of their public institutions at the very moment when liberal democracy has swept the battlefield, both ideologically and geopolitically. In America, at least, there is reason to suspect that this democratic disarray may be linked to a broad and continuing erosion of civic engagement that began a quarter-century ago. High on our scholarly agenda should be the question of whether a comparable erosion of social capital may be under way in other advanced democracies, perhaps in different institutional and behavioral guises. High on America's agenda should be the question of how to reverse these adverse trends in social connectedness, thus restoring civic engagement and civic trust.

The questions raised Putnam's articles are about as serious as questions get: Is the social "glue" that holds together democratic societies going to dissolve as we retreat from civic participation into more private pursuits? If, as Putnam proposed in a follow-up article, "The Strange Disappearance of Civic America," (PS, American Political Science Association, winter 1996), the diffusion of television through the population over the past forty years was strongly correlated with the disintegration of civic participation during that time, it is indeed important to ask now which way the Internet might push us in the future—toward or away from authentic community and deep personal ties. Or are we using the wrong assumptions and terminology when addressing the way civic practices are changing, the way Wellman and Cerulo believe we are misframing social science research in cyberspace?

Another contemporary student of community, also a Harvard professor, Robert Wuthnow, recently wrote a book, *Loose Connections: Joining Together in America's Fragmented Communities* (Cambridge: Harvard University Press, 1998), that addresses the way social affiliations seem to be changing. These paragraphs describing the book <http://hupress.harvard.edu/Fall98/catalog/loose_connect.html> summarize Wuthnow's thesis, offering an alternative to Putnam's view of the changes that seem to be taking place:

> It has become common to lament Americans' tendency to pursue individual interests apart from any institutional association. But to those who charge that Americans are at home watching television rather than getting involved in their communities, Robert Wuthnow answers that while certain kinds of civic engagement may be declining, innovative new forms are taking their place.
>
> Acknowledging that there has been a significant change in group affiliations—away from traditional civic organizations—Wuthnow shows that there has been

a corresponding movement toward affiliations that respond to individual needs and collective concerns. Many Americans are finding new and original ways to help one another through short-term task-oriented networks. Some are combining occupational skills with community interests in nonprofit and voluntary associations. Others use communication technologies, such as the World Wide Web, to connect with like-minded people in distant locations. And people are joining less formal associations, such as support groups and lobbying efforts, within their home communities.

People are still connected, but because of the realities of daily life, they form "loose connections." These more fluid groups are better suited to dealing with today's needs than the fraternal orders and ladies' auxiliaries of the past. Wuthnow looks at the challenges that must be faced if these innovative forms of civic involvement are to flourish, and calls for resources to be made available to strengthen the more constructive and civic dimensions of these organizations.

Defining, measuring, valuing, growing, and preserving "social capital" is hotly disputed territory. A group from the University of Victoria, British Columbia, maintains a literature review online: "Space Between the Market and the State: A Social Capital Literature Review and Conceptual Framework" at <http://web.uvic.ca/cpss/npsri/lit_rev.html.> The World Bank has a social capital web site at <http://www.worldbank.org/poverty/scapital/index.htm>. The British Columbia group defines social capital as: "the intangible social features of community life—such as trust and co-operation between individuals and within groups, actions and behaviour expected from community members, networks of interaction between community members, and actions taken by community members for reasons other than financial motives or legal obligations—that can potentially contribute to the wellbeing of that community."

In a recent online exchange, Christopher London pointed out that this economic definition of one of the most uniquely human traits, the ability to cooperate, presupposes a certain economic worldview, free-market capitalism:

Marx argued that in capitalist social relations it is possible for social life to be reduced to the mere exchange of tokens of exchange value and for the relationship between the things that people produce and the people themselves to get reversed. Rather than products existing to serve human needs, humans exist to serve products, that is, to make products come to life so that they may circulate freely in a market. Built into this monetary and exchange system is the subordination of masses of people, and their figurative and often literal degradation, so that the product of their labor may be profitably circulated by others. For capital to exist entails a host of social (institutional and cultural) arrangements to make this circulation of "surplus value" continue and for it to be characterized

by continuous growth. This is a massive simplification, but I think it applies to the issue of social capital because in treating social relations as "stocks" that can be "accumulated," the relations themselves are treated as mere means to an end: that of (physical or financial) capital accumulation. Though the social capital people claim to be putting social relations at the center of economic relations (and so supposedly illustrate that economic relations are social through and through), they don't do that at all. Rather, they reduce social relations to just another factor in an economic calculation. It's culturally premised on the idea that people come to their social relations only by thinking in terms of "what can I get out of this" and not in terms of "what do these people mean to me and me to them." (London, 2000)

The phrase "commodification of community" has been used by some social critics of virtual community. London pointed me to this passage from Marx's Capital in which Marx introduces (in colorful language) the notion that capitalism can turn human relations into commodities:

A commodity appears, at first sight, a very trivial thing, and easily understood. Its analysis shows that it is, in reality, a very queer thing, abounding in metaphysical subtleties and theological niceties. So far as it is a value in use, there is nothing mysterious about it, whether we consider it from the point of view that by its properties it is capable of satisfying human wants, or from the point that those properties are the product of human labour. It is as clear as noon-day, that man, by his industry, changes the forms of the materials furnished by Nature, in such a way as to make them useful to him. The form of wood, for instance, is altered, by making a table out of it. Yet, for all that, the table continues to be that common, every-day thing, wood. But, so soon as it steps forth as a commodity, it is changed into something transcendent. It not only stands with its feet on the ground, but, in relation to all other commodities, it stands on its head, and evolves out of its wooden brain grotesque ideas, far more wonderful than "table-turning" ever was.

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A commodity is therefore a mysterious thing, simply because in it the social character of men's labour appears to them as an objective character stamped upon the product of that labour; because the relation of the producers to the sum total of their own labour is presented to them as a social relation, existing not between themselves, but between the products of their labour. This is the reason why the products of labour become commodities, social things whose qualities are at the same time perceptible and imperceptible by the senses. In the same way the light from an object is perceived by us not as the subjective excitation of our optic nerve, but as the objective form of something outside the eye itself. But, in the act of seeing, there is at all events, an actual passage of light from one thing to another, from the external object to the eye. There is a physical relation between physical things. But it is different with commodities. There, the existence of the things qua commodities, and the value-relation between the products of labour which stamps them as commodities, have absolutely no connexion with their

> physical properties and with the material relations arising therefrom. There it is a definite social relation between men, that assumes, in their eyes, the fantastic form of a relation between things. In order, therefore, to find an analogy, we must have recourse to the mist-enveloped regions of the religious world. In that world the productions of the human brain appear as independent beings endowed with life, and entering into relation both with one another and the human race. So it is in the world of commodities with the products of men's hands. This I call the Fetishism which attaches itself to the products of labour, so soon as they are produced as commodities, and which is therefore inseparable from the production of commodities. This Fetishism of commodities has its origin, as the foregoing analysis has already shown, in the peculiar social character of the labour that produces them. (Marx, 1987, 76–77)

Outlining a program for measuring the health of civil society and defining social capital in a way that doesn't transform human relationships into commodities is beyond the scope of this book. However, it is at the very heart of the kinds of discussions that must take place on a broad basis, online and offline, among millions of people. It is in the service of this broad, citizen-driven, democratic discourse that online tools for publishing and communicating hold out a hope. If online community is NOT a commodity, it is only because people work to make it so. The hope I hold out for myself and suggest to others is that people will accomplish a task using a tool. Hope should not be vested in the tool itself. One important way of using tools wisely is informed government regulation. A tax break for corporations that donate to the public sphere, for example, might do more good than all the rhetoric and all the books decrying the deterioration of civic engagement. Consider the following scenario, not as a recipe for utopia, but a thought-experiment.

A tiny proportion of the gargantuan profits reaped by telecommunications service providers could be contributed to a well-managed fund (with its own budget and expenditures open for public inspection) that insures that every citizen has access to publicly available terminals, a free email account, and free access to introductory classes on citizen use of the Net. In a world where everyone has affordable access and citizens become actively engaged in informing themselves and communicating with one another, will it be possible to make government more responsive to citizen needs—and perhaps more responsible to the public trust? All proceedings and filings at the city, state, and national level could be made available to all citizens in dynamically updated databases, with easy-to-use web interfaces. GIS systems could enable citizens to visualize

the impacts of proposed development on regional cultural and ecosystems. We could know when our legislators trade stock in companies their legislation affects.

The scenario offered in the previous paragraph is offered as an example of what I believe we should work to build, not as an unattainably ideal society expected to emerge magically from technology. There is no guarantee that the potential power of many-to-many communications will make a difference in political battles about the shape of our future. Indeed, the odds are against a media-literate population seizing the opportunities the Internet offers. But I believe the opportunity for leverage is there, waiting to be seized, ignored, or mishandled. The hegemony of culture, power, and capital that critics from Marx to Fernback and Thompson describe is a potent force to be reckoned with. But if we don't try to make a difference in the way tools are used and people are treated, we definitely *won't* make a difference.

The first step in acting effectively is to know what you are acting on. Collectively, we know only a small amount about human behavior in social cyberspaces. We need to know a lot more. I hope that this chapter, and the updated bibliography, helps inspire and orient those who pursue that knowledge, debate its meaning, and put it into action in meaningful ways.