2

Anonymity

It used to be that all a user had was their words. The most important word was your name. A username assumed the apprehension and ballast of a first impression; it was the skeleton that others on the internet had to start with to assemble a notion of your identity. This name was a term of endearment that you christened yourself. Selected well, a single word might conjure up your humor, interests, spirituality, originality, solitude, beauty, apathy, and dreams. Even someone easygoing and indifferent about it, selecting their given name as a username—LaylaRose, Julian78—communicated something on the information superhighway, amid fellow travelers, self-named in puns and references or the oblique, those who answered to Knocktillucent, EllenRipley85, or ViolaString.

Back then, the term for the internet was earnest and atmospheric: "cyberspace." Now the word is received as a joke—a coinage with limitations, yes, but I find it helpful to differentiate the internet past from what happened next. When William Gibson came up with "cyberspace," as a word and concept for the virtual worlds in his fiction, he wasn't just thinking about the destination through the screen, but the surface where a user's feet touched the ground. The idea came to him as he watched kids in an

arcade, “so physically involved,” he told *The Paris Review*, that it seemed that “what they wanted was to be inside the games, within the notional space of the machine.” Every time I read that Gibson quote, I am transported back to the physical space that was obliterated when I entered cyberspace: the white walls, the tan carpet under my feet, and the cumbersome beige box of a personal computer in front of me. The keys, a sierra of peaks and slopes, felt heavy and pressurized at every click; nothing like the uniform flat buttons I’m tapping as I write this. I shared that computer with the rest of my family. That is where I grew up: immobile and hunched over while resplendent in release, my feet there and my head elsewhere. I arrived in cyberspace in the mid-nineties, a decade after Gibson gave it a name but the perfect time for me. I would enter the password (not challenging—my dog’s name, probably, or the name of my elementary school typed backward) and wait patiently through the duration of my electrifying commute. The ding ding bong bong wooosh-woosh dinggg sound trembled through my skin, in discord with my heartbeat, like the rattling of rails and wind against a train cabin. Then I was ready at the landing page to dive in and hide.

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The first internet message was sent over a packet-switching network in 1969. Two decades later, the launch of the World Wide Web added another gust of excitement. This development was more accessible and customizable than previous online functions. Tim Berners-Lee humbly announced his new “hypertext browser/editor” in several posts to Usenet newsgroups in 1991. “This project is experimental and of course comes without any warranty whatsoever. However, it could start a revolution in information access,” he offered. The web is now core to the

online experience, and many users mistake it for the internet itself, but the web is *web*sites or *web* pages that a user accesses with a browser (like Chrome or Firefox, or Netscape or Mosaic before). By the way, the word "online" is always a good hedge whenever you are unsure about how a computer is talking to another computer, because it refers to a network, any network—a network can be two computers linked, or a campus network, or the internet broadly. (The "information superhighway" is just as all-encompassing, even if the term is out of fashion these days.) If the internet was a house, the web was a trapdoor opening up to limitless rooms. The web was all that endless potential, but there was potential in the tight quarters of online services and internet products that came before it, too.

Commercial online services, which began in the late seventies, were compartmentalized in the first decade: Quantum Link users could play games only with other Quantum Link users, and CompuServe users alone could use the CompuServe forums. These companies sold the originality of their content—a sensible enough business model in an era of magazine subscriptions—even if it wasn't always clear to new internet users what GEnie had over The Source, or what made Prodigy any different from PlayNET. A few of the early online services never even connected to the actual internet. There is a material difference between dial-up online services until the late nineties and the internet service providers (ISPs) today, besides the prodigious uptick in speed. The content unique to these companies, like the custom-built forums, chats, and games, was a user's primary destination. Nowadays, if there is any unique content an ISP provides (say, the Comcast home page), a user probably bypasses it, without a second of delay, to connect to the rest of the internet.

Advertising for these online services told a story with a common theme: that of psychic teleportation, the power to

travel beyond the borders of the physical world. The invention of the telephone celebrated sound over distance (the magic *was* the distance, two people connected through wires). But online services, early on, conceived of their products as more than objects or communication tools. The language used in these ads seemed to borrow from Emily Dickinson's lyricism about books (a "Frigate … To take us Lands away"). The internet was a way to "connect," to meet user-to-user in an abstract territory and transcend physical boundaries, even the boundaries of physical bodies. The metaphor was underscored in company branding, like this slogan for The Source: "It's not hardware. It's not software. But it can take your personal computer anywhere in the world."

Bulletin board systems (BBSs) were another innovation beginning in the late seventies. These services were partitioned and predominantly regional (access to a BBS out of state was possible, if a user could swing the costly long-distance charges). On a BBS there were forums, similar to contemporary online forums, but the emphasis on location shaped the discussion. General community activity on a BBS might be compared to a corkboard in the back of a café, with notices about local matters, even people looking for roommates or trying to sell a bike. Usenet also had a "public broadcasting sensibility," as journalist Katie Hafner put it. Usenet ("users network"), where Berners-Lee posted the now legendary announcement, was established in 1980. The simple interface and nature of community participation was similar to BBS, but Usenet was for the internet public rather than a specific demographic or location. All it took was the right software client to download messages. A user would subscribe to a "newsgroup," categorized with a distinctive naming hierarchy (e.g., alt.gothic.fashion or rec.audio.pro). It was comparable to the World Wide Web as a distribution network, in that there was no rival to Usenet; however, it

was moderated at the top level. Anyone can reserve a domain name to set up a website, but newsgroups were created on request, often vetted on Usenet itself through groups like news.groups.proposals and news .announce.newgroups.

America Online launched in 1991, the same year that the World Wide Web opened up to the public. It sprang from the ashes of Quantum Link (Q-Link) in an attempt to mainstream online services. The web and AOL expressed two tendencies at the time: some developers were drawn to the grassroots creative freedom of the internet, while others, like AOL and Prodigy executives, believed that their products could balloon into media empires like Viacom. This is not to say there was an overt rivalry between two factions. It was a period of castle-building rather than competing over scarce territories. The open web offered a diversity of viewpoints, because it was easy to build websites; companies like GeoCities and Tripod made it even easier. But there was some diversity of entertainment and information options inside the walled gardens too, as AOL looked to cable television and magazines for ideas on how to atomize cultures into demographics. AOL offered channels like Netnoir ("the community room for the Afrocentric fellowship"), iGOLF, Health Zone, and Hecklers Online ("It goes the extra mile to be politically incorrect"). The inspirations were MTV, BET, and other cable stations, which sold their specific audiences as target markets for advertisers. Meanwhile, there were outliers that didn't fall neatly inside either camp. Among the most compelling online services to blend creative and commercial service was Echo ("East Coast Hang Out"), which debuted in New York City in 1990.

Echo users, in a daily poll, once answered the question "Why Do You Lurk?" Almost a quarter of them selected "I have nothing to say." Another 16 percent said they were shy, or intimidated, or felt like an outsider. Other responses

included “to get the lay of the land,” or because they were voyeurs. It is easy to see why some “Echoids,” as they called themselves, felt the digital equivalent of tongue-tied. Echo was cool.

In a 1993 *Wired* profile, Echo’s founder, Stacy Horn, with her sheer black top and blunt-cut dark bangs, looked ethereal and smart, like the lead singer of a shoegaze band just signed to 4AD. For $19.95 a month, a user had up to thirty hours of access to a community of New Yorkers, many of them artists and writers, and other wits about town. Echo situated the internet within arts and culture rather than the other way around. *The Village Voice* and the Whitney Museum were among its institutional affiliates. The Sci-Fi Channel invited the community to post in a chat superimposed over *The Prisoner*, Patrick McGoohan’s cult classic spy series, when it aired at 4:00 a.m. The online service was covered in *The New Yorker* and in the culture section of *The New York Times*, attracting readers of these publications. Echo bartered online service for advertising with the arts quarterly *Bomb*. One of the Echo web ads had the tag line, “When the voices in your head are not enough.”

John F. Kennedy, Jr., once carried his bike up five floors to Horn’s one-bedroom apartment in the West Village for an in-person computer lesson. He chose the username “flash,” which Horn assumed was in reference to cycling. She was too starstruck to ask why he picked it. That day, he browsed Echo discussions on culture and politics while sitting beside her. Horn tried to play it cool, despite a flurry of private messages. Her computer was beeping like a “nest of baby birds” (“That’s not really John F. Kennedy, Jr., is it?!” “Tell him he should be studying”). He participated for a short while afterward. Perhaps some users clicked on the profile for “flash,” which read, “John Kennedy. I’M an Assistant D A in New YORK city and am also learning to type.” Other Echoids might have assumed “flash” was just

another user in the city. They were an intergenerational group, with ages ranging from teens to people in their sixties. Contrary to prevalent stereotypes about online users at the time, 40 percent of its subscribers were women (granted, it was, to the dismay of Horn, very white). While conversations were broadly cultural, about all kinds of film, books, and music, community favorites tended to skew toward the cyber-introspective and science fictional, like *Blade Runner* and Neal Stephenson. "Everybody in the early days had at least some part geek to them," Horn told me.

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Echo was clever and communal in threads, where users were constantly joking, but conversations also accessed a depth of intimacy that Horn compares to "group therapy." Someone might have created a "conference" with a subject like "Tell me about your mother," and scores of responses would accumulate, in great detail, expressing trauma and pain; users would share their stories and sympathy throughout the week. In retrospect, Horn feels that as the founder and key admin, she missed out on a lot. She felt her presence was "like a teacher attending a party the students were having." Plus she had a team to lead: not just staff, but volunteer moderators, called "hosts." Two hosts were assigned to each conference, and in exchange, they received free Echo subscriptions.

Users couldn't explore all of Echo—there were private conferences, too, like the women's conference, which a user could access after requesting an invitation from the host. But the partition between content found on public and private Echo conferences wasn't as strict as an outsider might expect. Once there was a public conference under the topic "the Menstruation item." There, women on Echo began sharing stories, sometimes graphic stories—commentary on types of tampons and pads, stories about

first periods, and recent hassles. Only women contributed, but they weren't alone in the forum. Horn checked to see who was reading it and noticed there were a number of men, just lurking there. Eventually men started—gently, respectfully—asking questions, which the women happily answered. Her description of this exchange reminded me of quietly salutary moments I've witnessed on private listservs and other private online communities. Sometimes the moment is right, and people will talk about awkward matters, because the friction is lifted. A question that could come off as nosy in person might be welcome and even sensitive in text. The remote nature of exchange dissolves typical barriers between people, such as needless stigma or overcorrections in decorum.

Echo was a place for a shared experience, a venue to check in and vent. Members experienced breaking news together, like O. J. Simpson's white Bronco chase. They were simultaneously glued to the conversation on their computer and what unfolded on their televisions; as separate screens, not yet intertwined. People often speculate what 9/11 might have been like if Twitter had been around, but Echoids experienced an approximation of that. It was a New York online service and this was an attack on their turf, in some cases just a short walk from their homes. Stacy Horn could see the fire engorge the sky from her window. Meanwhile, she conversed with other users, who in that moment shared their shock and fear in collective comfort. It is tremendously affecting to read the transcript today, with time stamps, as users parse what little information they have, a mix of what they see outside and hear on TV ("There is a huge fucking hole in the side of the WTC!" posted by just charlene, 11-SEP-01 8:56). Some of the users were worried about friends and family, and others, in that instant, broke down lucidly what the attack meant for that moment and the future: "I had the mistaken idea that it was still early morning (I'm oblivious) but I now

realize there must be thousands of people at work in there right now. I can't believe this," wrote an Echoid who went by the username Pez. The exchange went on for hours in a post titled, "Item 245: Breaking News." They were stunned and shaken, but together for one another in that moment.

"Cyberspace," Horn wrote in her book *Cyberville*, is "just a place like any other place. As we realize this, as we become more sophisticated users, it won't be such a big deal anymore. People born in the eighties are probably reading this book and saying: duh." Reading this book, published in 1998, I was struck by her grounded pragmatism about the internet. She was careful to avoid utopian language, and never claimed that computers would democratize anything. The book, with its down-to-earth perspective, offers great insight on what drew people in to Echo. "Being online does satisfy an almost universal homesickness," Horn wrote. "Everybody has a trace of an ache—some eternal disappointment, or longing, that is satisfied, at least for a minute each day, by a familiar group and by a place that will always be there." A number of the stories in *Cyberville* foreshadow online community matters that continue to cause strife; for example, a section on banning users for racist remarks in the forums. "Cyberspace does not have the power to make us anything other than what we already are," she elaborated. "Information doesn't necessarily lead to understanding or change. It is a revealing, not a transforming, medium."

Reading *Cyberville*, I felt envious of Echo's blissful internet experience and engaged community. After all, it was New York City in the nineties, with nineties rent, alt-weeklies in print, a robust independent music scene, and a city only on the cusp of gentrifying. They were hanging out in an era with optimism about global politics: the Iron Curtain had fallen, apartheid ended. Then again, to look at the past with envy and borrowed nostalgia always means discounting the grit of reality. I don't envy those who lost

countless loved ones in the AIDS crisis or anyone who lived through the dog-whistle racism of the era and other bigotries. I guess all that outweighs how much I wish I could have been there to comment on *The Prisoner* and see my username on the Sci-Fi Channel at that ungodly hour.

I was curious to learn what kind of person would found a company as idiosyncratic as Echo. So I reached out to Horn with the technology available today. In the spring of 2017, about halfway through reading *Cyberville*, I clicked the follow button on her Twitter profile. She followed me back. I sent her a direct message and we made plans to meet for coffee when I was in New York the following month. She talked about Echo as a natural fusion of her two passions: technology and words. Growing up in the sixties, she remembers being the first on the block with whatever gadget was new, like color television. Her father was an engineer who designed cameras, and her mother helped out with his business. She loved books and wanted to be a writer, a dream she realized after founding Echo (she's published several books, most recently *Damnation Island*, a well-received page-turner history about the bleak origins of Roosevelt Island).

Horn built what she wanted from the internet and held on to it. "Many hundreds" of users still keep in touch, although most of the Echoids chat on Facebook instead of Echo, which, while operational, requires the same computer commands as it did in the beginning. Horn and a few hard-core Echoids jump between Facebook and the conferences, with the same interface that they used in the nineties.

"How would you categorize the community now?" I asked. "Like extended family? Like an alumni network?"

"Like people in a small town who never left," she answered, laughing.

The Echoids, who were once teens to sixty-somethings, are now forty years old to very old. There have been

funerals. There have been weddings and children, too. Two people who met on Echo married and had a kid. That kid is now in his twenties. The New-York Historical Society is currently working to archive all public conferences and make the text accessible. Then anyone can lurk on Echo, not because we are shy or intimidated, but because decades divide us in time.

That the Echo community remains close-knit and resilient through decades and platforms owes something to the face-to-face meetings that were vital to the user experience. There were thousands of members on the service in its prime, and almost all of them lived somewhere in the five boroughs. They had regular Monday night get-togethers at Art Bar—moving it to Tuesday temporarily so no one missed *Twin Peaks*—and they hosted an open mic series called "READ ONLY" at KGB Bar. When it was nice out, the Echoids played softball in Central Park and gathered in Bryant Park for summer film screenings. Or they would stay at home and read about those who did, knowing there was always next time, and the next Echo meetup was only a subway ride away. The forums were anchored in the eventual likelihood of connecting a face to a username—unlike the partially hallucinatory fleeting encounters that made up so much of the rest of cyberspace. Echo's community existed in the friction between the screen and the street, and kindling with its spark was friendship that endured.

After publishing her book, which refers to users only by their usernames, a handful of Echoids accused Horn of "publicly embarrassing" someone in the community. But public to whom? She told a story about how this user acted out, which everyone on Echo already knew. His name wasn't in the book. "I'm not embarrassing him to the greater world," she told them. His identity on Echo was locked inside a system you would need a password and telnet to access, and Echo-specific commands to navigate.

There was no Google then, so there was no way to google it. Only Echo users knew who he was, because their usernames had no purchase over the wider world. Echoids were not anonymous, at least in the 1990s sense of the word, as they had to use their real names to sign up for the service, but Echoids had anonymity as a collective, and that was part of their bond.

Echo users were not anonymous to one another, but they had contextual privacy in the community and in the moments they shared. It was possible to get a person's real name on their profile page, connecting the goofball in the comments with a name—the identity of a person who was three-dimensional and real, even if users hadn't met at Art Bar yet. But there were aspects of anonymity even within the community. A name in an Echo profile said only so much. Nowadays, entered in a search engine, names become a through line, the spine between everything a person has said or done that the network can index. A "real name," after Facebook, is emblematic of "one identity," but back when Echo was queen, a name was just a name. There was no way to dig into the internet and find out who a person was, because that data was largely unavailable. There was nothing privacy-slaughtering like Spokeo, which lists a person's address, let alone extortion directories, like mug shot databases. Even the idea of using a search engine to learn more about a random acquaintance, rather than a celebrity, was unlikely to occur to anyone. What would anyone find? Echo users, with their real names accessible to others on the service, had no volley between their online experiences and offline lives, apart from their meetups—meetups they voluntarily attended, which were known only to the Echo community. The friendships and personal connections existed on- and offline, and knowledge of one another remained contextual.

Anonymity is not privacy, although the concepts overlap. The lone figures in a crowd depicted in Edward

Hopper paintings are anonymous, because no one knows their names and they are private, because no one notices them. Anonymity is the state of being public but unacknowledged, while privacy refers to protection from intrusion from the public. To write a book anonymously is to avail oneself of the spotlight without impacting the book's distribution. The easiest way to achieve that is writing under a nom de plume. Or, since anonymity is contextual, too, one might use their real name but provide no bio, maintain no social media accounts, and exist as an unknown while hiding nothing. A private book, in contrast, might have an author's name on it, but the audience for it is controlled. That could be a diary, or a text shared with a select group of people in confidence.

Early internet users made a choice to present themselves somewhere on three spectrums: private or public, anonymous or named, factual or make-believe. The extent to which one's identity mimicked real life did not have much bearing on the depth of one's online experience (someone with a username like BradGSmithSeattle79 might have logged in every other week, bored with everything on the screen, while ZuccoTheParakeet, who said nothing in chat rooms but "chirp chirp chirp," lived for the internet). Fantasy coupled with a search for belonging meant that online communities opened up new ways for people to be cruel to one another, too. The pain of online harassment was frustrating, leaving users with inchoate torment, because the internet was thought of as a playground noosphere and not real life. Julian Dibbell's classic essay "A Rape in Cyberspace," first published in *The Village Voice* in 1993, told the story of a sexual assault animated in a LambdaMOO game. A user ran a subprogram that attributed text—sort of like stage direction—to other characters in gameplay, including lines that detailed sexual assault. "Posttraumatic tears" were streaming down the face of one of the victims as she called for the community to

punish the instigator afterward. These tears were "real-life fact," Dibbell wrote, "that should suffice to prove that the words' emotional content was no mere fiction."

Central to the cyberspace experience was the fleeting nature of content; ephemerality engendered both privacy and anonymity. Users infrequently saved emails and few took screenshots. Information online was treated as if it would wilt and die, eventually. Users changed usernames and deleted posts and pages unconcerned, because cyberspace, in addition to its chimerical possibility, was its own ecstatic surround with no bolts and no belay. There was little culture of continuity, or notion of making history. The conversations people had in forums, chats, and multi-user dungeon games on Q-Link or CompuServe went down the drain with those companies.

The deliquescence of the early internet put a cap on mechanisms for accountability—such as the virtual rapist Dibbell profiled—but it wasn't always a drawback. Truly rotten racist trolls online were free to ruin communities for the rest of the users (we'll get to them in later chapters). However, the scope of their abuse was curtailed by the limits of the services and data available: communicating username to username, your real life remained private—a troll couldn't send nasty emails to your boss or threaten your parents, let alone have a SWAT team dispatched to your front door. If someone knew a user's real name, as they would on Echo, they might check a telephone directory to find a phone number and address (although the phone company allowed people to go "unlisted," a layer of privacy that seems like centuries rather than decades past as a difference in standards and norms). Anonymity, through the fleeting nature of the internet, for users—evil, neutral, and good—was a perpetual freedom to reinvent oneself online. A user could wake up one morning, delete a newsgroup subscription from their Usenet client, and go about the rest of their life never talking to that community

again. You couldn't look up old ghosts on Instagram or find them through search engines. These anonymous users walked back into the ether where they came from. And who were the lurkers—the people who never showed up at Art Bar, but were sufficiently entertained just reading about the antics in the forums? They were the ether.

Cyberspace was collectives and communities, like Echo's quirky pockets of activity and inside jokes. That might be why Echo, and the New York art and tech scene more broadly, isn't more widely remembered or honored for its cultural contributions, apart from those who kept the candle burning. Silicon Alley had a thriving downtown subculture, but there was no Jean-Michel Basquiat or Fran Lebowitz or Lou Reed—no legends or legendary work emerged from it. The chat rooms and forums were constant after-parties to an after-party. Parties are merely the atmosphere of a culture, which lifts and fades away. To remember, a culture needs substance: something as a memento, something that can be contained.

Art in cyberspace was nebulous at the edges rather than framed. Institutional recognition wouldn't come for another decade, and with no criteria in place to assess the work, it was a free-form period to develop new standards and customs. Art-ish stuff online existed on a continuum from aesthetic to idle experimentation, like the camgirl/"lifecaster" phenomenon, which was performance art and proto-oversharing all at once. Jennifer Ringley, the most famous among lifecasters, was a nineteen-year-old student in central Pennsylvania when she installed a webcam in her dorm room. This was 1996, only two years after Connectix webcams hit the market. What could you even do with a webcam back then? Take it out and record a few things as an experiment, then stuff it back in a box and forget it until the technology is too antiquated to revisit? Ringley did something different: she left the camera running. She made it part of her everyday life, creating a

backup of her very existence. Black-and-white still images updated to her website every three minutes, nonstop.

Ringley once sat on a couch beside late-night talk show host David Letterman and joked, "Now what you can see is my empty apartment." Stacy Horn appeared on *Charlie Rose* explaining Echo. On television, they were ambassadors from the internet, because the internet wasn't a mass shared experience yet. The internet, and those who used it, was still a subculture interest. On television, they presented screen-based activity as novelty. They were akin to zookeeper guests with animals doing tricks, rather than a signal that cyberculture was becoming culture.

"I keep JenniCam alive not because I want to be watched, but because I simply don't mind being watched. It is more than a bit fascinating to me as an experiment," she explained on her website, five years into the project. Her justification was as curious as the project itself. In 1998, Ringley claimed that JenniCam received 100 million page views a week. What was she doing? What did this audience get out of it? Terri Senft, in her book *Camgirls: Celebrity & Community in the Age of Social Networks*, details how she got hooked on watching something that to anyone else must have sounded dull:

> I typed the URL and watched a webcammed image of a living room refreshing every few minutes. Jennifer wasn't even home. The whole thing came across as an exercise in deferred gratification, with an endless expectation that something might happen. Waiting for the webcam to display something besides her empty couch, I browsed the JenniCam's archived photos and online journals. The moment I figured out that I could match the date and time stamps on the photos to the journal entries, I was hooked. In viewing the images as a narrative, I was getting an

inkling of who Jennifer was, and why she might find it useful to share her life with the world. When she finally did appear, I found myself jumping back and forth between her new webcammed images and the archived images and journals.

JenniCam, both Ringley and the people watching her, were alone in company. Hundreds of similar cam-sites emerged, most of them run by young women. On these sites, the camgirl would act as a host, inviting guests to communicate on forums and in chat rooms. Their interaction made it less of a peepshow than a fan site with a community and a moderator. She wasn't an internet TV host; her online persona doesn't translate into today's understanding of "personal branding." There was something almost wholesome underpinning the curiosity of these audiences. They weren't merely "voyeurs"; far more explicit content was readily available elsewhere on the web. There might have been some teasing, and the chance to see a lifecaster undressed or with a partner was always in the air as bait. But in most accounts, just as fascinating, was the possibility to observe the monotony of another person's day. It was a look inside a space that is ordinarily private and sacred: a person's home—where they rest, where they dwell, where they recharge and hide from the world. Lifecasting cracked through to an experience more vulnerable than desire: the longing to feel like one is not alone in the world. Spectators were in the room while not physically in the room. They formed a one-way intimacy with the person on the screen, witnessing them in a domestic setting, while at the same time remaining strangers—remaining anonymous. The audience tuned in from their homes, likely alone, to watch someone alone in a room at the same time. They shared a moment but not a location, together but not. After the internet, being alone

meant something else. The state of solitude, once plain and obvious, was newly abstracted: Was it the empty room you sit inside, or the absence of human connection, whether virtual or in person?

Ana Voog was another prominent camgirl of the era. While Ringley presented her broadcast as an unadorned documentary transmission, Voog's screen image was a virtual vitrine. Her project—Anacam—broadcast to the web twenty-four hours a day, just like JenniCam, was visually rich, with evocative colors and primitive special effects. She posed before the camera and often staged her room like a set. One of Voog's projects was called the "Universal Sleep Station." A group, with sometimes as many as twenty users, would gather online and film themselves sleeping on camera simultaneously. They appeared together on a split screen. This private, solitary act—sleeping—became a shared experience, innocent and fanciful. Recently Voog has talked about the webcam as a solution to her personal circumstances; because of it, she could balance her agoraphobia with her desire to share performance art with an audience. In a 2018 essay for *Vice*, revisiting the project that broadcast every day for thirteen years from 1997, she explained that it was a "long-chain event I constructed in order to help me make sense of the world. I have an eccentric and resilient way of dealing with my suffering, for the most part. I turn it into art."

Looking over the Anacam archive now, I am struck by how her work captured the defining cyberspace aesthetics. It was the design persuasion of self-taught hobbyists, those who made their own zines or built their own web pages, and had an intuitive notion of how to work around the limitations of Kinko's copiers or create an eye-catching layout with basic HTML skills. Videos on MTV and indie magazines like *Mondo 2000* sometimes channeled this style, but it was always cyberspace-aware and cyberspace-native;

the signature of the first years of pages on the World Wide Web.

Archives reveal only so much. The camgirl documentation that exists is incomplete and perplexing to a visitor from its future. "I turned my cam off for good in 2003, and when Flickr launched in 2004, my archives were the first images I thought to post," wrote Melissa Gira Grant in an essay reflecting on her time in the lifecasting community. But Flickr lost the "silence and stillness we created in the gutters and in the seconds between images." Without the shared moment, and live, these images failed to resonate. Someone watching television is an audience, but someone watching Ana Voog was a coconspirator—still unknown, an anonymous coconspirator. The relationship between camgirl and fan had no traction outside the confines of cyberspace and its interruption of time and place. In 2007, this style of performance was weaponized in the artist Wafaa Bilal's exhibition *Domestic Tension* (also known as *Shoot an Iraqi*). Bilal set himself up as the target of a paintball gun controlled by an internet public, with a chat room and livestream to document it all. When the website appeared on the social link aggregator Digg, internet users flooded his chat rooms and livestream. Users began to shoot the paintball gun at Bilal nonstop. When he checked the threads about his project on Digg, he found comments spouting rage, racism, and bile. Another cohort of anonymous users wrote a script to keep the paintball gun directed left, which prevented the trolls from shooting him. The artist wiped away tears in gratitude. In recent years, Twitch, ostensibly a video game livestreaming site, has popularized this phenomenon. People talk about Twitch like it is weird, even though it is only a new sheen on one of the internet's oldest styles of connecting. There's nothing like Anacam's Universal Sleep Station on there, as far as I can tell, but a few Twitch streams are "gentle," as a 2019

Gizmodo piece characterized them, with hosts who knit before their viewers or read stories aloud to them.

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"Information Superhighway" had a valence of provocative optimism, sort of like "Green New Deal" does today. It was an idealistic term, glamorizing the "highway," an American romance, the physical expression of ambition—the texture, plotting, and substance extending to the near future. ("What is more beautiful than a road?" George Sand wrote. "It is the symbol and the image of an active, varied life.") Forget the gridlock; online was endless on-ramps. Information superhighway or cyberspace, I remember it like an intense dream; my feelings come before the details, tone and emotions before coherence. It can be easier for me to recall the concrete and tactile elements—carpet, mouse pad—than the fragile memories of friendships and my lives and lies on the early internet. That's where the "information superhighway" metaphor fails. What I remember best of the road trips is my seat in the car, not what I saw out the window. But I remember how I felt along the way.

The cacophony of a 2400-baud modem announced my passage to a secret world. It felt like my spirit traveled through the wires, dialing, dinging, convulsing, and thrashing its way to a mind-meld connection with my invisible friends. The internet was an alternate vector for expression, at a time when I felt I had no connection to the physical world, just a body in space with little to say. I was shy, and in any previous era I might have spent my teen years as a shut-in, totally bored and completely lonely. Maybe I wasted the years just the same, but the internet was more than civilization had ever offered youth with my privilege and spare time and disposition. It was an escape hatch from the trials of my adolescence: uncertain identity,

no autonomy, nowhere to go, nowhere to be. (The car-versus-computer evaluation in 1986's *Ferris Bueller's Day Off* seemed less settled ten years later.) I wasn't even in with a cool exclusive BBS or Internet Relay Chat (IRC); my internet experience up until college was plain old AOL. It wasn't much, but it was enough for me.

The dial-up sound seemed timed to a span of hesitation I took for granted, as much as the delay of online gratification. I preferred message boards over chat rooms, and I wished everyday conversation could be similarly asynchronous. I liked that I could pass off a witty response that took me an hour to craft, as if it casually, instantly came to me. I like to be alone with an objective, and writing on the internet provided a pretext (like writing in general would, as I'd discover later). Offline, I might prepare for a confrontation in the mirror in the minutes before it bursts, but writing online, under a pseudonym, the emotional pressure landed differently, with the calculation and temporal padding of revision. It wasn't entirely lack of confidence, although that was a factor. Rather, it was that rewriting was part of the framework of my identity as a user. Lurking was another internet superpower—it was a real-life invisible cloak. No one could judge me for what my body said about me. When I tried to talk to other students in class, I would stammer and blush with anxiety that was limited to the physical world. Then I logged on and found community of another sort. There, I could join conversations in my own time and without awkward silences. I had control over my identity and I could choose what aspects of it I revealed to others; the intensely confessional and honest encounters spiraled out from there.

Despite a world of other options, what I chose to reveal of myself online was often not very far from myself. I spent most of my time in forums with teenage girls like me, like the AOL message boards for *Seventeen* and *Spin* magazines.

Our communities were our shared secrets, forged between strangers, surface details unknown, but an intense understanding came to pass through all the interiority spilled. It was a lacuna of kinship. We comforted one another while confessing to self-harm like cutting or mental breakdowns, and we shared stories about our first sexual encounters and drug experimentation. Through those communities, I could see the universality of my fears and insecurities. There were others out in the world as wounded and alienated as me. These stories tumbled out in bits, pointed and pleading, like the time in a thread about Tori Amos when someone said, unprovoked, that she carved T-O-R-I into her inner thigh. There was no reason to treat another sad girl unkindly. My internet friends were an amorphous collective, echoing and validating in the dark. It was different exploring the web: alone and reading things on my own. Some online friends kept up pages on GeoCities and Tripod, and I would click around there. The pages looked a certain way, with design choices like pixelated purple toile wallpaper against lines from an Anne Sexton poem in vulgar cursive. But on occasion, the look of some of these pages was cover for a darkness: dangerous, unspeakable things were communicated there, like how to live on seven grapes a day and a teaspoon of cottage cheese. A website proprietor's inner brutality laid bare through a graphic interface felt too real, more real than the text of forums, and I couldn't talk back to a website. I would press the "go back" key—it was not for me.

I came to these bewildering online adventures through my family's shared computer station. The absence of privacy in physical space had little influence over the material I accessed in cyberspace. I was sitting at a computer, so my parents assumed I was doing something educational. It was like reading *Story of the Eye* with the cover swapped out with *The Wind in the Willows*.

I lived in the suburbs and I had a home in the suburbs of the internet, too. AOL, the internet's first suburb, had its headquarters in Tysons Corner—a clustered shopping mall in Northern Virginia disguised as a bedroom community. The AOL interface was a series of grids and right angles of options, from the white text boxes to communicate in emails and instant messages, to the long rectangular buttons that opened up to channels; it was boxed and specific like the kiosk maps inside the Tysons mall. Maybe I can't remember what was out the window, but I will never forget the robo-voice of the man announcing "You've got mail," or its ominous sound effects, like the creak of a door opening or slamming shut to represent whenever a Buddy List contact signed on or logged off. It was unsophisticated and trifling, but like the suburbs of the physical world, the weird, uncanny, and perverse also thrived there in secret.

If I wanted to know more about the invisible people I thought of as my friends, I could look up their profiles, and what they answered in the AOL questionnaires about age and where they lived, hobbies, and "personal quote," which was usually a quote from someone else. But we rarely took the AOL profile questions seriously. Once I filled out my profile in the voice of an overeager Conway Twitty fan. I barely knew who Conway Twitty was, but it was funny to me for reasons I can't explain. I still barely know who Conway Twitty is, or why I wrote the profile this way, but still it strikes me as hilarious, for reasons I couldn't try to articulate. I guess it tickled the absurdity of having to be someone online, having to be someone at all. Why on earth would I be myself online—a person I hated?

Sometimes my online friends and I would loiter in general chat rooms and annoy the other users—the lonely adults—with our inside jokes and indecipherable references. We went exploring together, following internal hyperlinks to desolate corners of AOL, to squat there, and use the chat and forum setups as our own semiprivate

group communication tools. I could even get lost there. On one excursion, I found an old AOL menu bar that included phased-out channels and internal content that hadn't been updated in months or even years. AOL hadn't deleted this content detritus; it only delinked and delisted these channels that were no longer in operation—but somehow I clicked my way over to it.

There was a dead channel in that expired menu, which was called "DeadOnline," too on the nose in name, but it was a real thing. Most of the posts in its inactive forums were from 1995, and it had to be a year or two later when I discovered it. There were a few recent posts, which sounded like graffiti tags; sentences like "LazySusan was here" or simply "Hi!" It wasn't a community, it was an excavation site. The other recent users must have found it, as I had, through an AOL back alley—a rectangle that wasn't supposed to be there, which they clicked on anyway. I posted something myself: "hi. Is anyone here?" The note was as conversational as marginalia in a library book. There were no notifications. The only way I might have seen if anyone answered my message was if I returned to the DeadOnline forum, either through the bookmark or the outdated menu I'd found. It could have been months or years until another person accessed it. I don't know if they did, because I never remembered to check back. Only now, more than twenty years later, with the power of Google, did I look up the name of this channel and learn that indeed it was called "DeadOnline" or "Deadline," after the old British comics magazine. The AOL channel was created to promote the upcoming *Tank Girl* movie. That's what I mean about how hazy my cyberspace memories are: I remember my excitement when I stumbled on this digital ghost town, but it wasn't until this very minute, and with the assistance of a modern search engine to connect me to someone else's reminiscences, that I could recall all that *Tank Girl* branding on that dead community, DeadOnline.

AOL was a closed platform, a "walled garden," a term that always makes me think of Frances Hodgson Burnett, but it was full of weeds. AOL's own executives talked about their product as tacky, and their users as dupes. "We have the opportunity to become the Carnival Cruise Lines of this environment," Ted Leonsis, the company president in 1995, told *Wired*. He was shepherding an environment to compete with the astronomical two-hundred-thousand-odd sites on the World Wide Web. The company strategy was to build accessible, attention-grabbing content so new users wouldn't feel overwhelmed. The company's target audience, Leonsis said, was the kind of person who might "run to the Hard Rock Cafe" once they arrived in a foreign country. The CEO's comments confirmed all the suspicions of longtime internet users. "Eternal September"—a term that fittingly outlived Usenet—was coined in the fall of 1993, when AOL offered Usenet access to its users, disrupting countless communities; the influx never ceased, but continued to wreak havoc on various rec and alt groups. To them, AOL users were the fanny-pack masses, an invasion of the squares. AOL users poked around Usenet with unsophisticated usernames, posted in ALL CAPS, left tacky newbie questions, and suburbanized cyberspace and its atmosphere.

AOL wanted America … online. Just what it said on the tin—well, polycarbonate plastic. It tried to onboard the country with ubiquitous setup disks and CDs that seemed to erupt from every magazine or cereal box. "When we launched AOL 4.0 in 1998, AOL used ALL of the world-wide CD production for several weeks. Think of that. Not a single music CD or Microsoft CD was produced during those weeks," a former AOL employee reminisced on Quora. AOL was as much training wheels for the internet as it was a gateway drug to full-on internet addiction. Before the service allowed unlimited use, its cap at twenty hours a month was excruciatingly stingy. Bills could run more than

a hundred dollars in overage fees (and, yes, I got in trouble for that more than once). People who might have only just learned what the internet was a few months before were soon cooking up schemes to cheat these limits. I always wondered why some of my friends on AOL cycled through so many usernames. I thought it was just teen angst and identity stress, like a new shade of Manic Panic hair color. Later, I learned they were phishing. Someone might create an official-looking username like "JanetAOL" and pretend to be an admin and request a password. Then they'd create a fresh new username on that user's account (every AOL subscriber could maintain five usernames). They would log in with the phished account on their home computers, and the time they spent on AOL would be counted as the phishee's outlay. Evidently not everyone was maxing out their fifteen to twenty hours, because the person who told me—ten years after our last AOL chat, in a conversation face-to-face—never got caught.

Now AOL is little more than an email service and home page on the web for boomers and seniors who never moved on. After social media, broadband rollout, routine service outages ("America on hold"), and a disastrous merger with Time Warner, it floundered, but not entirely. As recently as 2015, the company reported two million dial-up subscribers, and—in accord with the times—ad sales was its major source of revenue. More recently, it entered a dinosaur internet supergroup along with Yahoo under the banner "Verizon Media" (formerly "Oath"). America Online is easy to mock. It was pedestrian, hypercapitalist, and a failure—as we see now; but some criticism of it was tinged with classism. What was wrong with reaching out to communities outside hipsters and hackers? What's so bad about using the internet to exchange recipes or read about gardening—or, yes, recommend cruise vacations—instead of creating mailing lists for Pavement fans or developing multi-user dungeon games? AOL's lasting influence is that it

disentangled the identity of a general internet user from any kind of subculture or aesthetic. But I am biased, because while AOL zeroed in on customers in the suburbs, it collected another audience common there: the children of cruise-goers, those who are dragged to the Hard Rock Cafes unwillingly—the alienated and over-it teens, like I was then.

I left AOL behind once I got to college and experienced the euphoria of a dorm room Ethernet connection. The web, which I only dallied with as an AOL user, became the centerpiece of my internet life. All the energy I had once put into appropriating various AOL spaces for my own purposes, I later applied to exploring what seemed like infinite web pages. A few months into the first semester, I began to miss my AOL friends. I wondered what was happening back in my favorite forums and chat rooms. Then I discovered I could download the AOL software and check my account over the Ethernet. "You've got mail," said the disembodied robo-guy. It was just as I remembered, except that all my old haunts had turned to ghost towns. Many of my online friends had also left AOL when they went off to college. In our absence we created new dead sites, new DeadOnlines. All our conversations and confessions could be turned over and pored through by some intrepid lurker, as the community was no longer living, but the posts were there, for a few years after we had moved on. Later, when AOL transitioned into a web-only ISP, all those channels and forums and chats were purged. But it is okay. We weren't recording ourselves. We were just living on it.

There is no way for me to verify this, but there is little doubt in my mind that my closest online friends were as I imagined: other teenage girls. There may have been impostors who showed up in our forums and chats out of curiosity. But anyone who participated in our conversations regularly would have been filtered out, because their

references wouldn't have sounded right. We trusted one another to be alike in a certain way—American teenage girls, sometimes the odd Londoner or Kiwi—and any other details were spared. Maybe some of these young women did not appear to be women to the outside world, at least not yet. But how did we know the vast majority of our community weren't, say, old men pretending, like so many internet stranger-danger magazine cover stories? Because we knew. Some things can't be faked. Interiority can't be faked. Still, the aspects of anonymity that forged our trust also let us off the hook and prevented us from recognizing where our community was deficient. I cannot confirm the identities of any of these young women, except for a handful who are my friends now and whom I have met in person, but thinking back, these were message boards for indie music and zine culture, late riot grrrl interests (predominantly white). The internet offloaded the burden of us having to recognize our whiteness—our privilege; whereas at a concert, an art exhibition, or any other physical-world gathering, our homogeneousness would be visible to us, substantiating our collective failure and the tacit segregation we upheld. To my shame, I can recall only a single interaction with a person of color when I used AOL. One of the users in the message boards complained about racism in Weezer lyrics and said that as a half-Japanese girl, she found the album *Pinkerton* offensive. I would not have known she was a person of color if she hadn't said it. Because I bought into the branding of cyberspace as post-race, I failed to thread the needle that "post-race" was another way of assuming whiteness.

The internet, like many new communication technologies before it, sold itself as a social-change agent—a public good, a free education, something that promoted a broader "discourse." Radio, television, and more recently, virtual reality have all rolled out with similar lofty promises, only to fail, typically due to the privileged

homogeneousness of clueless early adopters. The claim is tempting at first, until you realize that technology in this equation is meant to do the work that white people are unwilling to do themselves. There's a classic example of this in Thomas Berger's 1970 novel about cryonics hustlers, *Vital Parts*, in which a white salesman tries to pitch a black man on the frozen quasi-burial service, with the appeal, "I hope when you return to the world the people of all races will be living like brothers." Then the son of his potential client howls with laughter, and says to his family, "I knew he'd get around to saying that sooner or later."

Cyberspace did not submerge our identities under a universal oneness of "user." Rather, the internet heightened our awareness of identity, similar to how sound is even more thunderous underwater. A sociologist once told me that before the internet, *The Presentation of Self in Everyday Life* by Erving Goffman was a difficult text to teach. Now students get it. They perform a self in one app or website, while other aspects of their identity are on full blast in different internet channels. When interests and talents are isolated and limited before projected, that is privacy in action: control over how information is distributed. This compartmentalization is never strict, and parts of one self will bleed into another, across many platforms and friendships, but it is fair to say that no one has the same conversation with their boyfriend that they do with their grandmother. In the past decade, on scaled-up mixed platforms where keeping identities pristinely separate is next to impossible, the resulting drama is known as "context collapse." So let's zoom out a bit. Rather than "end racism," the internet does—however modestly—inspire people to think differently about race. Racism didn't end in cyberspace because there was no talk of justice and decolonization or accountability underpinning these utopian scenarios of a future that looks like "all brothers." This is something the black man hearing the pitch in *Vital*

Parts understood, and the huckster all-lives-mattering him with a vision of a "post-race" future world didn't.

Lisa Nakamura expands on these ideas in her 2002 book *Cybertypes*, one of the best and earliest books to explain the contradictions in how cyberspace dictated expression of race. She contrasts the "fantasy of a race-free society" assembled online, and propagated in Benetton-style advertisements for various online services, with the reality that amorphous cyberspace usually amounted to a white male monoculture. Fluidity of identity online, due to anonymous communication, may have offered respite to marginalized groups. However, in online communities where majorities of users were white men, their own identities set the standard. There was never an opportunity to be a faceless, genderless, raceless internet user, because the public imagination of online identity has always defaulted to standards that white men had constructed.

Much thornier is a situation Nakamura calls "identity tourism," in which privileged people represent themselves online in appropriation of the identities of others. It might seem like a harmless act of fantasy, but to use the example Nakamura gives, a white man pretending to be an Asian person online, employing stereotypical references like samurais and geishas, has reinforced racist caricatures. Another white user who mistakes the impostor as an authentic Asian person is perpetuating this stereotype, sealing it in with an extra brushstroke. "Identity tourism" is the product of ignorance, sometimes grossly disguised empathy, but there are examples of playing across identity in constructive ways. Trans internet users often talk about creating online identities that match their gender identity long before they have come out to the physical world. Numerous cis people have benefited from pretending to be another gender online, if only because the experience is eye-opening. The difference is when an "identity tourist" sets the agenda for the identity of characters they

pantomime online, due to the perceptions of other users, when internet forums are anonymous.

The best cyberspace entities for diverse communities were created and maintained for and by those same communities. Lavonne Luquis founded LatinoLink with credit cards and all of her savings, telling reporters that she was frustrated when she searched the internet for "Latino" and uncovered few results other than Latino Studies departments at universities. Skawennati, a Mohawk digital artist, and other aboriginal artists created CyberPowWow, a series of interconnected chat rooms for their community. Then there was Cafe los Negroes (CLN), a subscriber-based website and forum founded in 1995 by McLean Greaves, providing "futurism from a practical perspective that speaks to Generation Xfro (the wired segment of diasporic peeps of color)." CLN chat rooms included the poetry-oriented "Dread Poets Society" and "Q-Tip" for queer users. The content site included regular features profiling young fashion designers and filmmakers of color ("Hood Couture" and "Cine Noir") as well as columns—blogs, essentially, before they were called "blogs"—by Greaves and other CLN regulars. The website received upward of a million views a month. Greaves showed an early concern for digital privacy and included a notice on one of his pages informing the user of how cookies work ("Find out what else does the Net know about you [or better yet, what should you know about the Net]"). Bedford-Stuyvesant was the spiritual and physical hub of the CLN community (Greaves ran operations from his apartment). Cafe los Negroes even advertised locally, with posters up on phone booths around the neighborhood reading, "Not tall enough for the N.B.A.? Too 'unique' to get signed to a record deal? Don't worry; there's another way to get outta the ghetto: the Internet … Representin' Bed-Stuy in Cyberspace."

As with Echo, there was an emphasis on in-person meet-ups (including joint meetups with the Echo

community). Greaves's web design company Virtual Melanin Inc. (VMI) primarily served black and Latino culture creators, and it even led to a collaboration with HBO called *Cybersoul City*. His company was featured in a number of articles in *Wired* and *The New York Times*, yet many of these reports also revealed the trouble he had finding investors. CLN eventually shut down in 1998 after a membership drive failed to meet its fund-raising goal.

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While major internet companies tried to pander to these communities (like AOL's attempt at a BET-style channel to capture the black commercial market), the founders of Cafe los Negroes, LatinoLink, and similar ventures created their own online spaces for their own communities. They set the rules and the agenda. These founders were pioneers, and they were right—after all—that internet users of color would continue to rise in number. How unfortunate, then, that they did not reap the benefits of a more diverse internet. As of yet, these companies are rarely mentioned in internet history books. That could change, and I hope it will, but Greaves won't ever see his legacy take off, because, sadly, he passed away in 2016.

"The appeal to, or marketing to an assumed white world is a function of whiteness, not a unique function of the internet," Mendi and Keith Obadike explained to me over email. The artist duo came to public attention with their 2001 work *Blackness for Sale*, in which they listed Keith's "blackness" on eBay. The online auction site removed the listing despite numerous other auctions selling "African exotica and Nazi paraphernalia," as Keith told Coco Fusco in an interview shortly after the project ended. "I really wanted to comment on this odd Euro colonialist narrative that exists on the web and black people's position within that narrative. I mean, there are browsers called Explorer

and Navigator that take you to explore the Amazon or trade in the eBay," he said, back in 2001. The piece went viral, and Black Planet—another early social network for black internet users—conducted a poll. About a quarter of the respondents thought it was brilliant, 29 percent found it offensive, and 45 percent believed the artist had "too much time on his hands."

While cyberspace was no post-racial sanctuary, at best it allowed communities to find one another, and for that reason it provided special relief to queer users. It may have even served as a progressive step toward wider LGBTQ acceptance. A number of my queer and trans friends talk about the internet as one of the doors they passed through to exit the closet. Someone questioning their sexuality could find information in secret and with stigma diffused—resources that might be unsafe to look for in their hometown. Members of the trans community speak of the internet more viscerally, because as a user, with options for anonymity and pseudonymity, it is possible to express an identity more "real" and factual than what the physical world can see yet. One reason I hesitate to attribute too much of the internet's influence in the acceleration of mainstream acceptance of queerness is that the timing overlaps with another major culture shift. In 1990, as the World Wide Web, Echo, and AOL took off, 24,835 people died of AIDS complications in New York alone. Meanwhile activists—making sure no one ignored this and no one would forget—were out on the streets in protest. Since there's no way to do this accurately, it can only be stated theoretically, so I write this, opening myself up to the risk of sounding glib: the web took off in the nineties, absent a community who might have taken to it. I don't know how to count the spaces where queer people are missing in internet history because they were not there. Many of the people who might have been mentors, elders to young queers, had died before they could impart their wisdom. I

see the gaps, sometimes. What would the internet be like today if they had lived? It would be better. But I don't know how. It is our collective loss.

Not that the internet was deserving of the creativity it transmitted. Phil Agre, an academic who researched internet policy and development in the 1990s, once explained online communication as a trade-off: a computer "can only compute with what it captures; so the less a system captures, the less functionality it can provide to its users." Cyberspace, which some imagined as a fluid, free-floating mesh of information, was, in practice, engaging its resources of data—data that could be aggregated, mined, and surveilled. The internet is, after all, a technology built for and by the military; every social exchange through it is enabled and occasioned in a system designed for tracking, monitoring, and analytics. The façade of weightless expression of identity against the mechanics of data capture and surveillance created ideological fractures among the internet's most involved netizens. Fred Turner, in his classic *From Counterculture to Cyberculture*, recounts a revealing exchange that happened in an online conference on The WELL in 1989, in collaboration with *2600* and *Harper's* magazines. One of the panelists, John Perry Barlow —a founding member of the Electronic Frontier Foundation (EFF) and, before that, a lyricist for the Grateful Dead—had the best intentions but a hopelessly optimistic idea of the internet. It was a communal town square, the Wild West, a democratizing change agent, notions that he would synthesize in his influential text from 1996, "A Declaration of the Independence of Cyberspace," which claims freedom as a central and untrammeled tenet of the internet experience. ("We are creating a world where anyone, anywhere may express his or her beliefs, no matter how singular, without fear of being coerced into silence or conformity. Your legal concepts of property, expression, identity, movement, and context do not apply to us. They

are all based on matter, and there is no matter here.") But conferencing on The WELL, back in 1989, there were already detractors. As Turner recounts, "Acid Phreak lost patience with Barlow and in a classic bit of realpolitik, used Barlow's Pinedale address information to download and publish Barlow's personal credit history."

Neither side won, exactly; there was still plenty of hippie libertarianism about the internet through the next decade, but the dream of cyberspace—strangers, strangeness, anonymity, and spontaneity—lost out to order, advertising, surveillance, and cutthroat corporatism as the internet grew more commonplace—and faster. Independent companies run for and by marginalized communities were among the casualties of the dot-com collapse. Neighborhood-oriented services, like BBSs, could not compete with the speed and price points of corporate broadband. Broadband also meant that users could begin an internet experience on the web, rather than inside the chat rooms and forums housed in online services like AOL and CompuServe.

Usenet was searchable on the web, too, through a website called DejaNews. Then Google acquired DejaNews's Usenet archive and nested it under its own Google Groups. Unsurprisingly, Google has not done a great job at keeping the archive searchable or usable for internet historians. Even before Google took over the archive, Usenet fizzled out, due to a combination of increase in internet users, no tactics for moderation at scale, and opportunities to cluster elsewhere on the bustling web. "Everybody's given up on sci.physics," a system administrator told *The New York Times* in 1999. "It used to consist of serious discussions among physicists; then the U.F.O. people took it over." They moved to sci.physics .research, but "then the lunatics took it over."

hours of work on Page's part. Page and I negotiated for weeks over his proposal … In the end, Page relented." I entered the beginning of this passage into Google itself—just the words "In exchange for sitting down with me." The search engine did not recommend Battelle's or even Auletta's book (which quotes him). Instead, the first result, and the second, fourth, fifth, and eighth—there were only eight results—directed me to suicide hotlines, including the website of a major nonprofit and a YouTube video, "Dance Moms/Group Dance Suicide Hotline." Google algorithms must have parsed "In exchange for sitting down with me" as a cry for help (?). Nothing in my search history might have tipped this off, and it's such an unsettling instance that I thought I would mention it here. Google's "Year in Search 2017" is available on YouTube, in addition to its other annual roundups. Eric Schmidt called multiple results a "bug" in an interview with Charlie Rose in 2005, which is further considered in a *Washington Post* piece by Gregory Ferenstein ("Google, Competition and the Perfect Result," January 4, 2013). Nitasha Tiku has reported on activism at Google ("Why Tech Worker Dissent Is Going Viral," *Wired*, June 29, 2018). An interview with Guillaume Chaslot, one of the engineers who worked on the recommendation system, in *The Guardian* ("'Fiction is outperforming reality': how YouTube's algorithm distorts truth," February 2, 2018) provides more information on how hateful content and misinformation spreads on the platform. Safiya Umoja Noble's book *Algorithms of Oppression* (NYU Press, 2018) is a definitive look at Google's bias. Jack Nicas reported on Fiskhorn's Google-instigated transition into "Fishkorn" ("As Google Maps Renames Neighborhoods, Residents Fume," *The New York Times*, August 2, 2018). Ellen Ullman has commented on how Google has shifted the meaning of the word "search." In her book *Life in Code* (MCD, 2017, 206), she writes, "Search is a part of us, one of the desires evolution has woven into us over the eons, to keep us alive." And in a 2013 interview with Maud Newton she commented, "Has Google appropriated the word 'search'? If so, I find it sad. Search is a deep human yearning, an ancient trope in the recorded history of human life" ("Meet the Flannery O'Connor of the Internet Age," *Salon*, January 23, 2013).

2. ANONYMITY

This chapter only briefly touches on the internet before the web. Anyone interested in the prologue should check out Janet Abbate's

1999 book, *Inventing the Internet* (MIT Press, 83), especially for its depiction of ARPANET as an example of the "variety of active roles users can play in shaping a new technology." The William Gibson quote comes from an interview in *The Paris Review* (David Wallace-Wells, "William Gibson, The Art of Fiction No. 211," 2011). "First" as a date and concept is often a fuzzy distinction. The World Wide Web is thirty years old, a date that is basically correct the year I write this (2019), the year this book will hit shelves (2020), and the year after that (2021); Tim Berners-Lee invented it in 1989, wrote the first browser in 1990, and released it to the public, per his newsgroup posts, in 1991. Among the first commercial online services, The Source launched in July 1979, according to the 1995 Washington Technology obit for its founder, William F. von Meister, which also reports that Isaac Asimov was in attendance at its launch at the Plaza Hotel event, where he said, "This is the beginning of the information age." CompuServe, according to its still-operational website, was founded in 1969 as a computer time-sharing service. The company website also explains that in 1979, CompuServe became the first service to offer email and "technical support to personal computer users." The Source brochure slogan is quoted in Walter Isaacson's *The Innovators* (Simon & Schuster, 2015, 392). The advertisement is available to view in Fredric Saunier's 1988 book *Marketing Strategies for the Online Industry* (Macmillan, 1988, 85). In 2003, the *Chicago Tribune* profiled the locals Ward Christensen and Randy Suess, who invented the BBS in 1978, mentioning that "in typical Chicago fashion, a snowstorm got an assist in the invention" (Patrick Kampert, "Low-Key Pioneer," February 16, 2003). The Katie Hafner quote about the BBS's "public broadcasting sensibility" comes from an article she wrote for *The New York Times* ("Old Newsgroups in New Packages," June 24, 1999). Information about AOL, including its description of channels, comes from "The Official America Online Tour Guide, Third Edition, 1997," a text that is available to read on the Internet Archive. Echo was a "conferencing service," but that is a "fine distinction" from the BBS, as Stacy Horn told me. This section draws on my interviews with Horn in March and August 2017. I also consulted Horn's memoir about her experience founding the company ("And Now," in *Cyberville: Clicks, Culture, and the Creation of an Online Town*, Warner Books, 1998). The community's 9/11 posts were republished on *New York* magazine's website on September 6, 2006 ("Item 245: Breaking News"). There was a profile of Echo in *The New York Times* (Trish

Hall, “Coming to the East Coast: An Electronic Salon,” January 28, 1990). Marisa Bowe wrote about the service in *Wired* (“Net Living: The East Coast Hang Out,” March 1, 1993). More recently, Sandra Newman profiled the service in *The Atlantic* (“Growing Old in New York’s Snarkiest Early-Internet Community,” May 2, 2017), and Claire L. Evans provided further context in her book *Broad Band* (Portfolio, 2018, 134–80). As the website for Echo explains, “Founded in 1990, we have over 3,000 members and 40% of them are female.” According to Fred Turner’s *From Counterculture to Cyberculture* (University of Chicago Press, 2006, 279), 40 percent of the users of The WELL were women, too. Julian Dibbell’s “A Rape in Cyberspace,” first published in *The Village Voice*, also appears in his book *My Tiny Life: Crime and Passion in a Virtual World* (Fourth Estate, 1999). My comment that “no legends or legendary work emerged from” New York’s tech-media-art scene is a bit of a provocation, given that such things take time. Even in later years, hardly anyone has set their film or fiction in this time period and scene (notable exception: Thomas Pynchon’s *Bleeding Edge*, 2013). Until then, we might look to nineties San Francisco for West Coast context, including Lynn Hershman Leeson, who made the film *Conceiving Ada*, about a computer artist making a CD-ROM, which starred Tilda Swinton as Ada Lovelace and included appearances by John Perry Barlow, Bruce Sterling, and Timothy Leary. That same year—1997—Ellen Ullman’s *Close to the Machine* (City Lights) was published, recounting her work as a computer engineer. I wrote about the camgirl art movement in the 2014 book *Art and the Internet* (Black Dog Publishing, 2014, 18–23). Jennifer Ringley reported that JenniCam received 100 million page views a week, but that was self-reported, and Theresa M. Senft quibbles with its likelihood in her book *Camgirls: Celebrity and Community in the Age of Social Networks* (Peter Lang, 2008, 24). There have been a few recent pieces looking back at Anacam, including Heather Saul in *The Independent* (“What Happened to One of the First Ever Internet Stars,” January 29, 2016) and Ana Voog for *Vice* Broadly (“I Was One of the Most Famous People Online in 1998—Then I Disappeared,” June 22, 2018). If one wishes to explore the “Universal Sleep Station,” well, the Internet Archive has you covered (e.g., October 12, 1999, web.archive.org/web/19991012223749/http://www.voog.com/).

Melissa Gira Grant’s essay “She Was a Camera” appeared on *Rhizome* (October 26, 2011). Wafaa Bilal’s anecdotes come from his book *Shoot an Iraqi: Art, Life and Resistance Under the Gun* (City Lights,

2008, 79–86). Nicole Carpenter wrote about "The Gentle Side of Twitch" for Gizmodo (April 23, 2019). "What is more beautiful than a road?" George Sand wrote in the 1845 novel *Consuelo* ("Qu'y a-t-il de plus beau qu'un chemin? pensait-elle; c'est le symbole et l'image d'une vie active et variée"). A *Wired* magazine style guide from the nineties said the term "Information Superhighway" covered the "whole digital enchilada," so I'm going with that definition. Anyone interested in more recent online communities of teenage girls, similar to my experiences, might wish to research Neopets and Laundromatic (Laundro), among other spaces. Some images and information about "DeadOnline" can be found at this website: http://14forums.blogspot.com/2013/05/deadonline_268.html.

Leonsis's "Carnival Cruise Lines" quote comes from a *Wired* article (Mark Nollinger, "America, Online!," September 1, 1995). Leonsis's competition with two hundred thousand websites was discussed in *The New York Times* (Jesse Kornbluth, "Who Needs America Online?," December 24, 1995). Privatization of the internet backbone—principal data routes—allowed services like AOL to thrive, and background on that might be read on the website for the National Science Foundation ("A Brief History of NSF and the Internet," August 13, 2003). In response to a question on Quora, "How much did it cost AOL to distribute all those CDs back in the 1990s? Whose idea was it?," Reggie Fairchild, a former AOL employee, wrote, "When we launched AOL 4.0 in 1998, AOL used ALL of the world-wide CD production for several weeks. Think of that. Not a single music CD or Microsoft CD was produced during those weeks. I still remember hand delivering the Golden Master to Lisa in Marketing" (December 28, 2010). AOL issued a press release in February 2015 saying that it had 2.2 million subscribers in Q4 in 2014. Leonsis spoke with Kara Swisher on her podcast *Recode Decode* in 2016, and explained AOL's decline in tandem with the rise of Google ("I wake up one day and basically they took everything we did on AOL. Mail. Messaging. Maps. Streaming video. You just go down the list and they did it better, faster, cheaper. And it was free. They didn't have to be dependent on access"). Of course, the company did make AOL email accounts free in 2006 (Saul Hansell and Richard Siklos, "In a Shift, AOL Mail to Be Free," *The New York Times*, August 3, 2006). The company also attempted to pivot to surveillance capitalism with Oath, Verizon's bundle of AOL and Yahoo, which Nilay Patel and Ben Popper covered in the Verge ("Oath isn't just a terrible name—it's going to be a nightmare ad-tracking machine," April 5,

2017). Another quirky thing about the company is how many media and politics VIP types held on to their AOL addresses until as recently as the past ten years. Ben Smith, in a piece for *Politico* ("AOL Email as Status Symbol," September 9, 2011), listed a few AOL holdouts at the time, including David Axelrod, Arianna Huffington, Matt Drudge, and Tina Brown. He summarized that "part of the reason some never switched is that they were early adoptors of mobile devices, which don't care which service you're using. And if they've held on this long, there's really no reason to give up now on something that's cycled back to being a status symbol." The section about race on the internet largely draws from Lisa Nakamura's research in *Cybertypes: Race, Ethnicity, and Identity on the Internet* (Routledge, 2002). The founding of LatinoLink was reported in the *San Francisco Chronicle* (Jamie Beckett, "LatinoLink Founder's Vision for Hispanic Web Site Pays Off," June 22, 2012) and the New York *Daily News* (George Mannes, "Multi-cultural Web They Weave," October 27, 1996). Mikhel Proulx's studies of Skawennati Tricia Fragnito's CyberPowWow include a paper he published, "CyberPowWow: Digital Natives and the First Wave of Online Publication" (*Journal of Canadian Art History* 36, no. 1, Concordia University, Fall 2016). "When it comes to access to technology for persons of color," Jeffery Chester, the executive director of the Center for Digital Democracy (previously called the Center for Media Education), told *The Village Voice*, "The dividing line is income, not race. You have equal number of poor whites who have the same kind [of] tough odds of getting access as African Americans or Hispanics." Chester's quote comes from the story "Wired Like Me" (David Kushner, March 30, 1999), which profiles Benjamin Sun, the CEO of Asian Avenue, and addresses the challenges McLean Greaves and Lavonne Luquis faced raising capital. Cafe los Negroes came to life for me when I visited the old website courtesy of the Internet Archive's Wayback Machine. The note about the posters in Bed-Stuy comes from Charisse Jones's story in *The New York Times* ("Power Through Cyberspace," August 3, 1996). I interviewed Mendi and Keith Obadike over email in 2017. The earlier quote comes from Coco Fusco's interview with Keith Obadike in 2011, which is available to view on the Obadikes' website Blackness for Sale ("All Too Real: The Tale of an On-Line Black Sale: Coco Fusco Interviews Keith Townsend Obadike," September 24, 2001). The figure of 24,835 deaths due to AIDS complications in New York comes from a *New York* magazine feature ("AIDS in New

York: A Biography," May 26, 2006). I had Sarah Schulman's *The Gentrification of the Mind: Witness to a Lost Imagination* (University of California Press, 2012) in mind when I was writing that section. But it is important not to forget, as the protesters at the Whitney Museum's 2018 David Wojnarowicz retrospective were there to remind us all, that "AIDS is not history." Phil Agre's paper was published in *The Information Society* 10, no. 2 ("Surveillance and Capture: Two Models of Privacy," 1994). Acid Phreak's trolling of John Perry Barlow with the assistance of Phiber Optik, as Fred Turner recounted in *From Counterculture to Cyberculture*, has a happy-ish ending of sorts. Barlow said in an August 2013 Ask Me Anything on Reddit, "I got a phone call from Phiber Optik, who is now back to being Mark Abene. He now lives in San Jose, has one small child and another soon to arrive, a successful Infosec company and a life. It was so great to hear from him. We are very excited to get together again. Meanwhile, we're still fighting exactly the same war we were then. It's just a lot bigger and more complicated than it was in those halcyon days."

3. VISIBILITY

In 2003, Jennifer Egan wrote a feature for *The New York Times Magazine* that captured what was haunting and surreal about meeting people through websites like Friendster: "No context becomes, in effect, a context all its own—an avatar, if you will, of the city itself. This is how the Internet was supposed to work, and it suggests that the deep impulse behind the success of online dating could reach well beyond dating itself" ("Love in the Time of No Time," November 23, 2003). The Mark Hamill quote comes from an interview in *Rolling Stone* (Brian Hiatt, "Skywalker Speaks: Mark Hamill on Returning to 'Star Wars,'" December 18, 2015). On the *Internet History* podcast, Jonathan Abrams insisted the website delays had more to do with Friendster's loss of users to Myspace. A number of his accounts in that interview contradict my research. Abrams said on the podcast that he created the platform for "friends," and the media misstated his intentions. But contrast these recent statements with what was written in a 2003 *New York Times* profile of danah boyd: "Friendster is trying to cut off any behavior that is not in line with their marketing perspective and the idea that this is a dating site," boyd told the *Times*. "He didn't want to know anything that would help user experiences unless it has to do with dating … At another point he told me that it was my type of people